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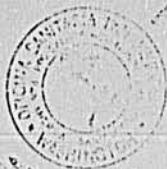
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Wednesday-February 5, 1975

[Health Problems of Black
populations]

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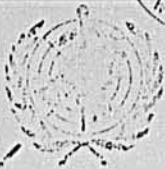
PANEL II



PAN AMERICAN HEALTH ORGANIZATION

Pan American Sanitary Bureau, Regional Office of the

WORLD HEALTH ORGANIZATION



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THE EDUCATION & TRAINING OF ALLEIED HEALTH PERSONNEL
IN THE ENGLISH-SPEAKING CARIBBEAN

Presentation by Dr. Harold Drayton to the First International Conference
on Health Problems of Black Populations, at PAHO/WHO, Washington, D.C.,
3 to 7 February 1975.

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General background and introductory remarks

In keeping with the overall theme of our Conference, it would be relevant, I think, to mention first of all the health problems of the peoples of the Commonwealth Caribbean--the majority of whom are the descendants of people who were brought from Africa under slavery, or as indentured labourers from India, Portugal and China. These problems may be summarized as follows:

- Greatest causes of sickness and death in the region result directly from poor sanitary conditions.
- Chief dangers in the environment arise from insufficient and unsafe water supplies followed by insanitary sewage disposal.
- 20 to 30% of all deaths in the Caribbean are due to communicable diseases, with one-third of these deaths resulting from diseases that could easily be prevented.
- Combined malnutrition and diarrheal disease in children under two years of age account for most of the deaths in this age group but also for one-fifth to one-third of deaths of all ages.
- The death rate among mothers in the Caribbean is six to seven times greater than in North America. The incidence of anaemia is quite serious.
- Existing sewage systems serve only a small fraction of the urban population ranging from 5 to 30%.
- Mental illness constitute almost half of the total volume of illness.
- Grave problems of dental health, venereal diseases, diabetes and alcoholism.

The picture is not dissimilar in Latin America as a whole, and among the people who live in rural areas in particular. Their common health problems are inextricably bound up with the overall social and economic backwardness of the Region, which is deeply rooted in the operation and structure of their economies. Among the most formidable obstacles to development are technological and cultural dependency and its related lack of self confidence and self reliance; and the way in which the available economic surplus is at present distributed.

As Winkelstein has so candidly remarked in a fairly recent analysis of the factors underlying the allocation of health and disease care resources:

A strong case can still be made that the principal ecological factor recognized by Chedwick and Shattuck,

namely poverty remains among the most powerful determinants of altered health status and clinical disease today. It may well be that the elimination of poverty in and of itself could drastically alter the health status of the population in a favorable direction.

The health manpower problem

One of the major constraints on the delivery of health services to the five million inhabitants of the Commonwealth Caribbean is the acute shortage of trained health workers.

This problem has been discussed in detail by representatives of governments and of the health professions on many previous occasions. It would suffice here if I emphasized that the problem is multi-factorial, and is not simply that there are too few doctors and dentists. As important, if not more so, is their maldistribution between urban and rural/hinterland areas, and between hospitals and community health services. Coupled with insufficiency and maldistribution is the poor utilisation of expensively trained health professionals, and the continuous emigration of trained staff to "greener pastures".

In the Commonwealth Caribbean as a whole the number of doctors/10.000 is a mere 2.87 and of dentists much less than 1.

Representative sample figures (1972) for available allied health personnel are as follows:

		/10.000
Nurses & Midwives	3.725 (excluding Bermuda)	7.45
Nursing Assistants	1.081	2.2
Public Health Inspectors	552	1
Laboratory Technologists	253	0.5
Nutritionists & Dietitians	27	.05
Health Educators	6	.01

In thirteen countries of the Region there are schools of nursing (under the aegis of Ministries of Health) which offer three year Diploma programmes. Some of them also have shorter programmes for the preparation of nursing assistants. Only six of the nursing schools, however, have reached the standards set by the Regional Nursing Body.

Apart from Nursing, there is a very restricted range of programmes for the education and training at institutions in the Region, of other categories of health personnel. Most of the training conducted by individual Ministries of Health is sporadic, ad hoc, unorganised, often entirely in-service, and supervised in the main by part-time tutors who do not have the desirable professional tutorial skills.

Here again, we have a pattern in Latin America which is woven of the same cloth. Parenthetically, we might note in relation to the "brain drain" factor, the point stressed recently by Vicente Navarro--

The inflow (to the USA) of Latin American physicians during the period 1960-69 was equivalent to nine medical schools, with an estimated annual direct and indirect savings in those years of US\$300 million..

The Health Manpower problem in the countries of the English-speaking Caribbean is but an aspect of their underdevelopment. The more that one understands about the parameters of underdevelopment, the more is one tempted to conclude with Maurice King and Navarro, that any definitive solution must await a social transformation, based on need and on egalitarian perspectives. This appreciation in no way absolves us from attempting partial solutions in the context of the here and now.

The Approach

Since February 1969, at successive annual meetings of the Caribbean Health Ministers' Conference (CHMC), the acute shortage of Allied Health personnel--health workers other than doctors and dentists--has been identified as the central problem; and the urgent need has been emphasized for a planned regional program of education and training to remedy present deficiencies and to guarantee a continuing supply, adequate in number and quality.

PAHO/WHO has been attempting, therefore, in cooperation with the Governments--over the past three or four years--at the modification and expansion of existing resources, and at the organization of a Regional system for the planned formation of Allied Health workers.

A Regional Project has now been formulated, in which and institutionalized, multidisciplinary and regional approach will be employed.

By "institutionalized", we mean that the programs for health workers would be based at educational institutions. In the aggregate, all of these institutions would cater for the education and training of health workers to aide, basic and advanced levels; and at all levels, pre-service, in-service and continuing education programs would be included.

The Project will be based therefore on a network of educational institutions throughout the Commonwealth Caribbean. Cooperative agreements will be concluded between these institutions and the service divisions/departments which will provide structured work experience for the students/trainees. Linkages will also be forged between the educational institutions which will be directly involved in the Project, on the one hand, and the University, on the other. "University" is used here in the generic sense to include not only the three campuses of the UWI, but other Caribbean Universities as well, and also Universities/Colleges in the USA, Canada, Britain, and other countries.

Through these linkages and the conclusion of formal/informal accreditation arrangements, open/ended basic curricula will dovetail into post-basic/degree level programs at the University. This will facilitate career mobility based on the vertical and lateral development of technical skills.

A multi-disciplinary/multi-professional approach implies the coordination of programs for the preparation of different types of Health workers, in which maximum use is made of core courses such as Human Biology, Basic Chemistry, Public Health Biology, Community Health and Health Education, and Microbiology. This approach is not only economical in the use of time, physical plant and teaching personnel. Experience has shown that it contributes as well to what some have called the 'socialisation' of members of the Health Team.

May I digress at this point to make a few remarks about this Health Team - a phrase that is so very popular these days. The Health Team is not a simple group of persons, among whom the Doctor happens to be the most conspicuous. It is not a group which is assembled opportunistically to tackle particular health problems as and when they arise, and which is dispersed as soon as solutions have been found and the crises have passed!

The real modern Health Team is something very different. In the first place, it has all the special characteristics of a Team - a common objective, clearly formulated, understood and accepted by all its members; a specific allocation of tasks and responsibilities; and an integrated profile, in which individual effort contributes solely to collective excellence. In its functioning, the Health Team displays a unity of discernment and thought; conscious and efficient planning of work; a freely established hierarchy; mutual respect among its members; and respect of all for the authority of the Team. Above all, the Health Team gives evidence of effective and continuous integration.

The sharing of a more or less common educational experience, in an institutional setting, will be an excellent preparation for the integrated practice of the Health Team.

Nor is the 'socialisation' effect I talked of just now by any means limited to students. It will benefit also their teachers. Nothing can be more stultifying to the professional growth and development of teachers in any discipline than to be deprived of the intellectual stimulus of contact with colleagues in disciplines other than their own. The multi-disciplinary approach will facilitate the exchange of ideas about novel instructional tactics, the optimal use of audio-visual and simulation techniques; of experiences with methods of assessment and evaluation; and will promote a professional relationship among Health Sciences' Tutors.

As many different types of Health workers will be educated and trained locally in each of the countries - to the highest level possible within the limits of available resources, and taking into consideration the financial constraints which are operative. On the other hand, in so far as is possible, the student/trainee intake to the individual programs will be adjusted to meet both national and regional demand. This is the essence of the Regional approach that will motivate this Project - the shared utilization to the optimal level, and on mutually acceptable terms, by all the countries of the Region, of the resources available in the aggregate.

There is a long tradition among the peoples of the Commonwealth Caribbean countries of sharing educational (and other) facilities - quite apart from the regionally owned UWI - e.g. the WI School of Public Health, the old Imperial College of Tropical Agriculture, Mico and Erdiston Teacher Training Colleges, Schools of Nursing in Barbados and Jamaica.

One other general point needs to be made. The Project lays stress on the importance of the preparation of Health Sciences Tutors who are not only qualified in particular disciplines, but who also know something about the principles of education and about teaching methods. Formal programs for full-time tutors, and seminars and workshops for part-time teaching staff at the weekends and during vacations, will be included in the Project.

Operational Details

The resources at institutions in five of the countries of the Commonwealth Caribbean- Bahamas, Barbados, Guyana, Jamaica and Trinidad are/will be adequate to satisfy both national and regional demand for education and training in a range of disciplines. Some degree of specialization will be allowed for among these "Regional Centres", both in the interest of economy and to meet the needs of these specialities for which the number of students/trainees will be small.

The recently established Division of Applied Sciences of the College of the Bahamas is still at the preliminary planning stage, and it is not possible to detail the programs that will be offered. However, it is very likely that a new two-year College - based program of basic nursing education will be developed, and that the post-basic program for Community Nurses will have a regional student intake. A post-basic regional program in Food Hygiene for Public Health Inspectors has also been proposed. Pre-health services and introductory programs for laboratory technicians and PHI's are in the course of preparation.

Discussions are in progress with Florida International University about a possible articulation between the basic programs to be offered by the Division, and those at an advanced level at F.I.U.

The Division of Health Sciences of the Barbados Community College was formally opened in November 1974. The first pre-health services program for 40 students, and a two-year basic program for 12 public health inspectors are in progress. Plans are well advanced for basic level programs in Medical Technology, Pharmacy, Health Records and Statistics and for Dietetic Technician to commence in September 1975.

There are also preliminary plans for a training program for Health Sciences' Tutors to be coordinated by the Director of the Secondary teacher training unit of the UWI School of Education. Until such time as national Tutors can be trained, full-time Tutors are being made available by the People-to-People (HOPE) Foundation, under a technical assistance agreement with the Government.

In Guyana, the University of Guyana has been involved since 1966 in the education and training of allied health personnel. There are on-going programs for medical technologists, medical auxiliaries, and public health engineers; and plans for new programs in 1975/76 in basic nursing education, for X-Ray technicians, Public Health inspectors and Public Health Nurses.

In October 1974, a new Department of Health Sciences was created and a Head of Department appointed. A new laboratory has been built, at Government expense - on the University Campus, specifically for the training of Allied Health personnel.

In Jamaica, there are on-going programs at CAST, in Pharmacy and Medical Lab. Technology; and September last year saw the start of a Certificate Level program in Health Records and Statistics. It is planned to develop a Health Science Tutors' program within the Technical Teacher Training Division of CAST.

Apart from CAST, there are well-established programs for Nurses at the Kingston School of Nursing, at the UWI Hospital, and at the Advanced Nursing Education Unit, UWI; for PHIs and PHNs at the WI School of Public Health; for Dental Auxiliaries at the Dental Auxiliary School, for Physiotherapists at the School of Physiotherapy; for Radiographers at the School of Radiography, UWI Hospital; and for the training of Community Health Aides by the Ministry of Health.

This is perhaps the most convenient place to mention the Diploma in Community Health Program of the Department of Social and Preventive Medicine, UWI. This is geared to the promotion of advanced training of Allied Health professionals to fit them for supervisory/leadership roles. It is one of the important "linkages" to which I alluded earlier and will be promoted under the Project, by the provision, through PAHO/WHO, of various types of assistance.

In Trinidad, the Government has stated that the Dental Auxiliary training program (funded by the UNDP) is a first step towards the establishment of a College of Health Sciences, first noted in 1969-70.

The precise location of the College has still to be decided, but one proposal under consideration is that a World Bank loan for a School of Nursing on the P-O-S Hospital site should be augmented by a grant from another external source for the creation of a multi-disciplinary institution.

Apart from these "regional centres", it is proposed that local Divisions of Health Sciences should be established in the Leeward and Windward Islands, within the Technical/Teacher training colleges.

In these 'local' Divisions of Health Sciences the education and training of Nurses to basic R.N. level would be the major activity. In addition, the resources would be utilized in the provision of pre-health services programs; training for nursing assistants, dispensers, public health inspector-assistants, community health aides, wardmaids, orderlies, and ambulance drivers; and induction courses for "lay workers" in Ministries of Health. For all those personnel for whom it would be essential, structured field/laboratory/hospital experience would be an integral part of their educational preparation.

Provision will be made at Regional Centres and at local Divisions of Health Sciences for short training programs - of the community health aide type - to prepare voluntary workers in local communities for health promotional activities, the prevention of disease, and the treatment of minor ailments and injuries. Linked with this training of voluntary community health workers would be the promotion under the Project of community health associations, and the achievement through them of the highest possible level of participation among Caribbean communities. Community health associations would also foster ideals of service among students of the Health professions, and mutual respect and esteem among Allied Health personnel. A movement in this general direction has already begun, with the assistance of the Executive Secretary of CHMC, PAHO/WHO and the Commonwealth Foundation in London.

One general concern of the Project shall be the promotion of reasonably uniform standards of all Certificate and Diploma level programs at regional centres, so that qualifications would be acceptable throughout the Region. Towards this end, maximum use will be made of the external examiner system; and regional meetings of the health professions will be sponsored.

Future prospect

It is our hope that through the implementation of this Regional Project over the next five years, a Regional system will evolve in the English-speaking Caribbean for the planned formation of Allied health workers.

But can we dare to hope for more? Is it possible that through a process of interaction with the established Medical Faculty of the UWI there

Departments/Divisions/Colleges of Health Sciences will ultimately produce for these countries the type of public health doctor who will be skilled in the art and science of Health Care (in contrast to disease care - diagnosis, treatment and rehabilitation) - practitioners with an appreciation of human ecology, an abiding interest in the control and manipulation of the human environment, and with a thorough grounding in Preventive Medicine.

M.J. Rosenow, in his valedictory address at the University of North Carolina some years ago said:

Preventive Medicine dreams of a time when there shall be enough for all, and every man shall bear his share of labour in accordance with his ability, and every man shall possess sufficient for the needs of his body and the demands of his health. These things he shall have as matter of justice and not of charity.

Preventive medicine dreams of a time when there shall be no unnecessary suffering and no premature deaths; when the welfare of the people shall be our highest concern; when humanity and mercy shall replace greed and selfishness; and it dreams that all these things will be accomplished through the wisdom of Man. Preventive Medicine dreams of these things, not with the hope that we individually may participate in them but with the joy that we may aid in their coming to those who shall live after us. When young men have vision the dreams of old men come true.

Dr. Hamid El'Neil - WHO/AFRO

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The use of epidemiology in deciding on priorities in the construction of diagnosis flow charts

- These charts can be used to:
 1. diagnose the most common health problems seen in patients attending health facilities, e.g. dispensaries, health centres, hospitals, etc.;
 2. diagnose these conditions fast. Most patients attend as outpatients and the average time spent with each patient is about 3 minutes;
 3. provide clear indications for referral from one level of medical care to another.
- Such charts can be modified to suit the needs of any level of health personnel.

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SUBJECT _____

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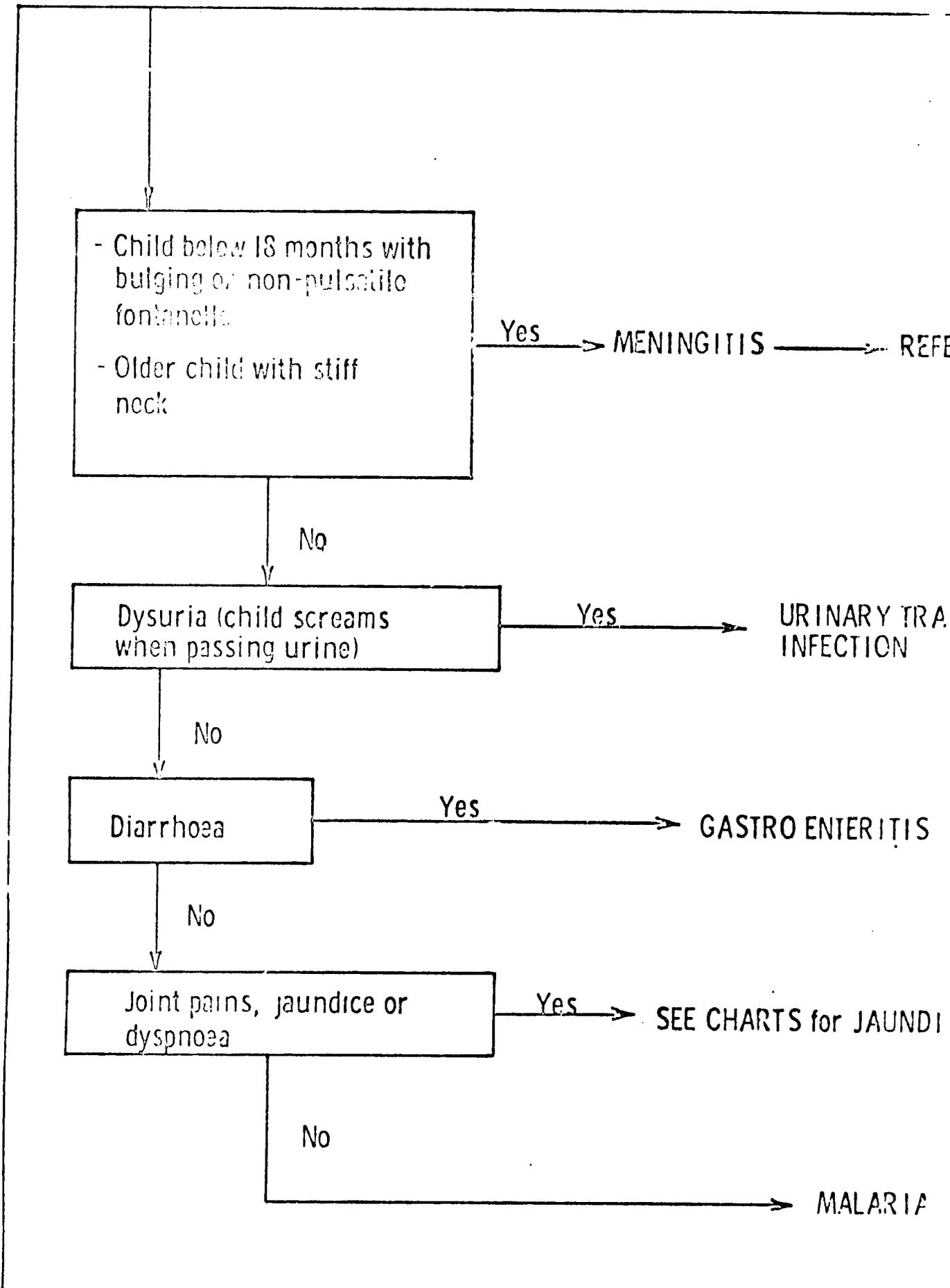
MADE IN U.S.A.

CATALOG NO. 15-1006-4

Visual Products Division 

For example it was reported from some countries in the Region that out of all children presenting with fever at hospitals only 20% had a positive slide for malaria. The other 80% had acute tonsillitis, pneumonia, otitis media, or gastroenteritis. Such studies provided the basis for the construction of diagnosis flowcharts at one medical school in the Region. When tested on medical students in the first year of clinical studies, there was 95% agreement with the final diagnosis made by an experienced clinician.

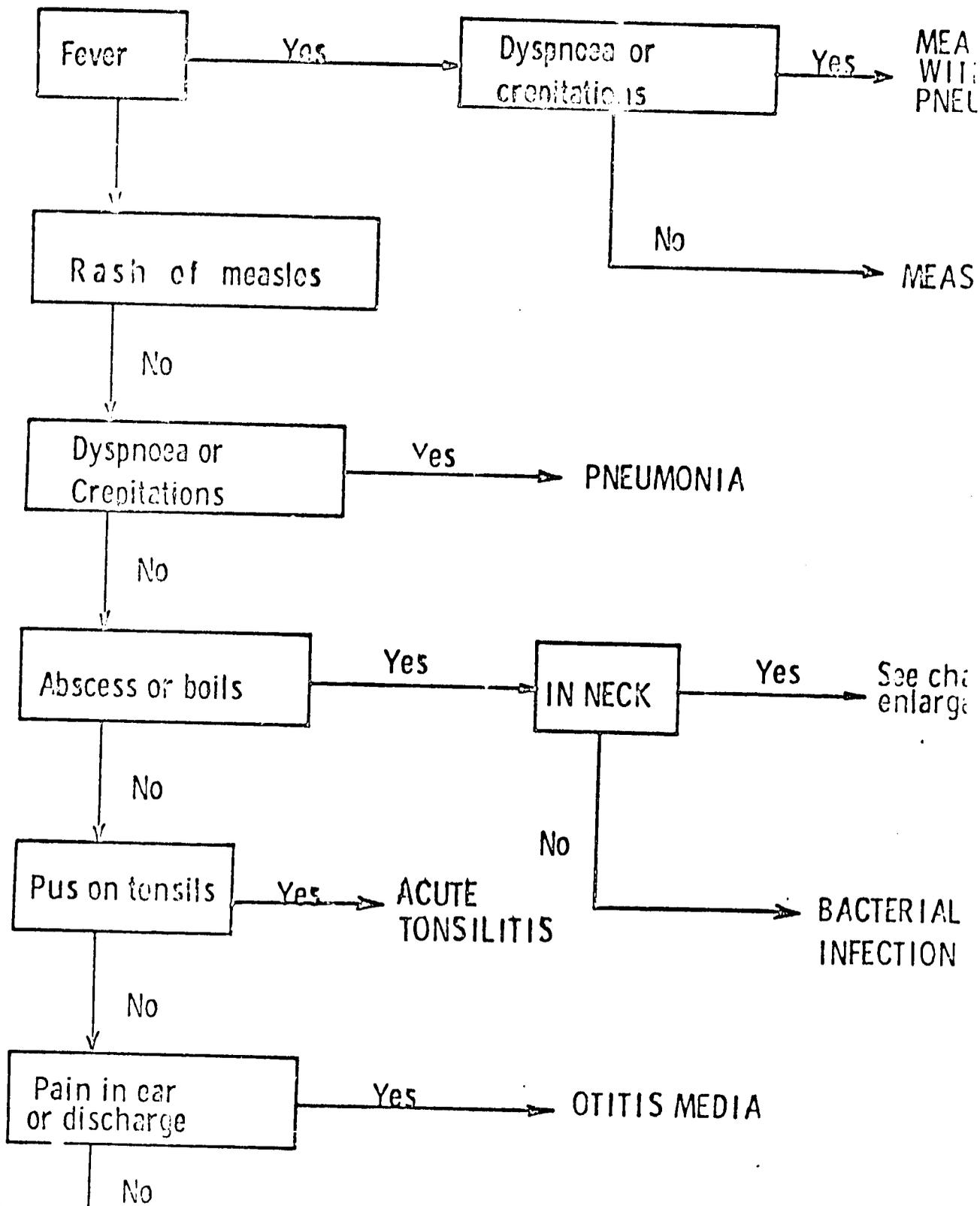
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A set of 48 flowcharts were used.
Chart No. 25: Fever In a child



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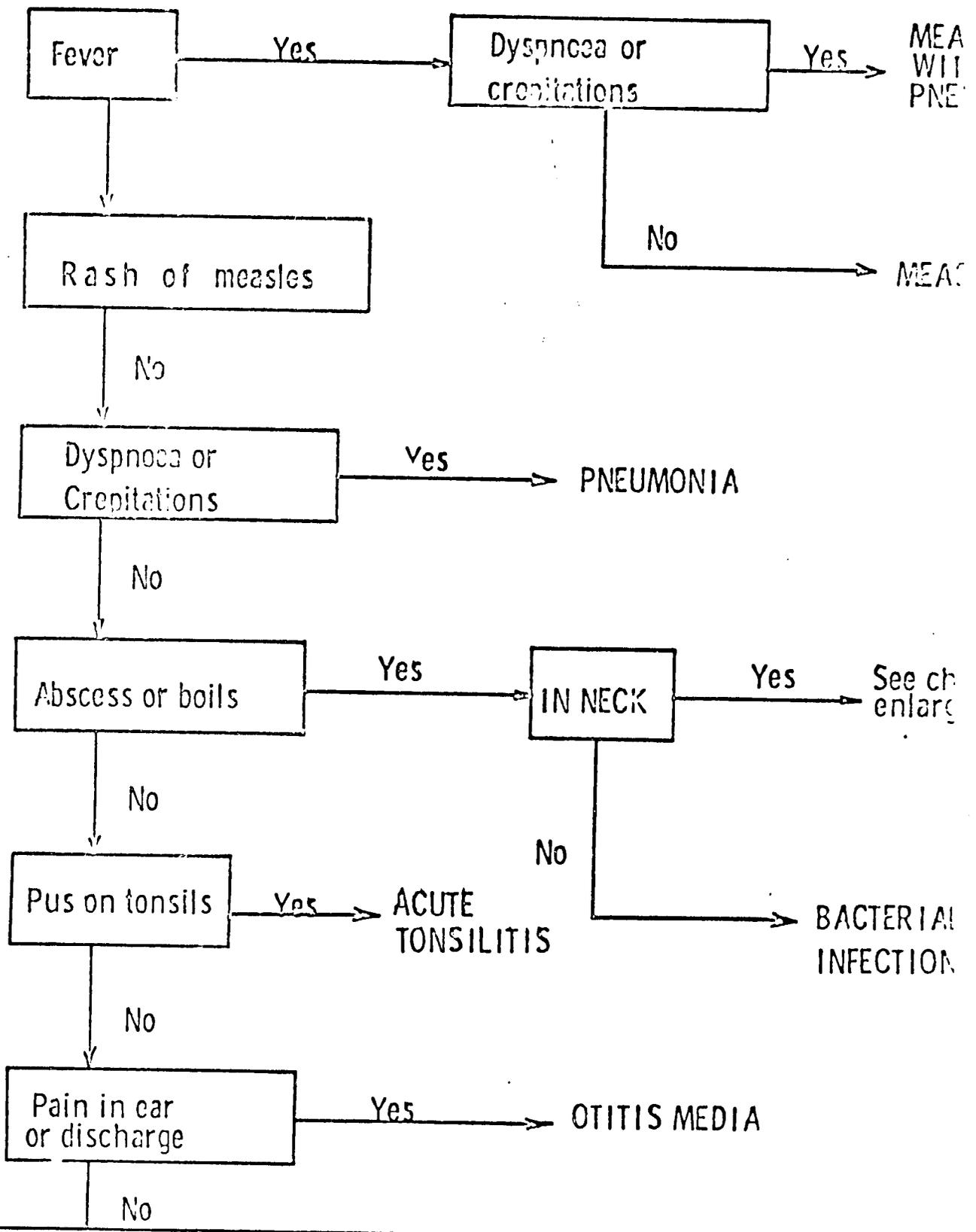
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Chart No. 25: Fever In a child



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- Child below 18 months with bulging or non-pulsatile fontanelle
- Older child with stiff neck

Yes → MENINGITIS → REF:

No

Dysuria (child screams when passing urine)

Yes → URINARY TR/ INFECTION

No

Diarrhoea

Yes → GASTRO ENTERITIS

No

Joint pains, jaundice or dyspnoea

Yes → SEE CHARTS for JAUND

No

MALARIA

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Dean Ira Robinson
College of Pharmacy, Howard University

SUPPORTIVE PERSONNEL IN PHARMACY*

historically, pharmacy and medicine have a common origin. The healing arts were practiced and preserved by an ancient priesthood in the temples of by-gone civilizations. The knowledge, skills and mystique of the healer's crafts were faithfully recorded and passed on to succeeding generations of priests, who practiced their skills and expanded their knowledge through early forms of research and passed these on to those who followed in their foot-steps.

Yet, the origin and the development of the Healing Arts is as old as history and the development of man himself and parallels this development. Ancient man learned the healing arts by trial and error and observation of birds and beasts, and eventually applied his newly acquired skills to relieve the suffering of his family and friends.

It is said that pharmacy first became legally separated from medicine in 1240 A.D. in Sicily and Southern Italy when royal edict prescribed regulations for the practice and licensure of practitioners of pharmacy and medicine.

In the United States, pharmacy training has developed from an apprenticeship program to formalized, academic programs increasing in length and breadth of discipline over the years to our present-day academic degree programs offered in our schools and colleges of pharmacy today. The following various academic degrees have been offered over the years:

1. Pharmaceutical Graduate (Ph.G.), two years of study
2. Pharmaceutical Chemist (Ph.D.), three years of study
3. Bachelor of Science in Pharmacy, initially four years of study; subsequently, 5 years of study or the equivalent
4. Doctor of Pharmacy, basically six years of study for the basic professional degree; however, seven years of study at some colleges of pharmacy

*Prepared by Ira C. Robinson, Ph.D., F.A.C.A., Dean, College of Pharmacy and Pharmacal Sciences, Howard University, Washington, D.C., for presentation before The International Conference on Health Problems of Black Populations, sponsored by the Howard University College of Medicine and the African American Scholars Council, Washington, D.C., February 5, 1975.

Presently, academic programs leading to baccalaureates and doctorates in pharmacy are offered by accredited colleges in the United States.

In advancing from the Pharmaceutical Graduate to the present-day B. S. in Pharmacy and Doctor of Pharmacy degree programs, colleges and schools have sought to maintain pace with changing and increasing demands for a broader range and better quality of health-care services in the community. Formerly, the pharmacist was trained to be a "pill" maker and dispenser of medicines. He was expected to own and operate a traditional "Drug Store" or "Apothecary" or to man the former hospital "drug room". However, advanced pharmaceutical as well as medical technology has changed all of that. Today, the pharmacist compounds very little; he counts and pours (oops!); but most importantly, he now spends more time with the patient and fellow health professionals, counseling them on proper drug use, storage, administration and handling. He remains the custodian of drugs and drug products but has shed the more pecuniary orientation for a more patient-oriented practice in which he does something considerably more than "sell" a drug to a patient.

Consequently, today the pharmacist is performing a variety of unique functions heretofore reserved by the physician for himself or other paramedical personnel under the physician's direct supervision. This is especially so in the hospital environment where pharmacists are being included on the clinical team and making rounds with the physician. In this new role, the pharmacist is called upon to advise the physician in selecting the most appropriate drug(s) for the patient as well as to manage the drug therapy of patients with chronic diseases. This is unique in that this opportunity permits the new generation of emerging pharmacists to more fully utilize their extensive and sophisticated training in such subjects as anatomy, pharmacology, physiology, biochemistry, physical diagnosis, and pathology as well as basic pharmacy. They are able to

capitalize upon their unique expertise in the areas of drug-drug, drug-food and drug-chemical interactions; biopharmaceutics and pharmacokinetics; and adverse drug reactions, for the benefit of the patient.

Today's pharmacist is better able to perform such unique roles principally because he completes an interdisciplinary clinical training program in a variety of health-care facilities along with the medical, dental, nursing and allied health professional student. He develops and analyzes patient drug profiles, engages in drug reaction studies, develops and implements drug information programs. During training, the pharmacy student completes clinical clerkships which include clinical rotations; rounds and Grand Rounds of the medical, surgical, pediatric, cardiovascular, infectious diseases, pulmonary diseases units. Today's pharmacy graduate can appreciate the role and value of high speed automated, electronic computers as aids in diagnosis, treatment, and health-care systems management.

One may wonder how the pharmacist will be able to utilize such clinical training and at the same time fill the ever-increasing numbers of prescriptions for the increasingly health-conscious populace. More specifically, one perhaps wonders just how Black pharmacists will find the time to render such time-consuming services, particularly since only 2500 Black pharmacists are in active practice in the United States today. The wonderment can, of course, be extended to other black populations of the world since medical care, including pharmaceutical services, is much more limited in our sister countries.

The answer is simple: The pharmacist cannot and will not be able to perform the more highly professional clinical role as an equal member of the health-care team without the delegation of non-professional functions to a pharmacist-extender--a pharmacy assistant or pharmacy technician, if you will. As has been done in medicine, the pharmacist has delegated various manipulative, repetitive duties to a non-pharmacist while reserving the responsibility to supervising such personnel in order to protect the patient's welfare.

from the nurse's medication chart.

The materials management technician is responsible for assisting the pharmacist with extemporaneous compounding; tax-free alcohol withdrawal, dilution and dispensing; stock control and automatic floor stock replacement. In fulfilling these responsibilities, the technician may replenish nursing unit stock weekly or biweekly as needed in order to maintain adequate stock supplies on the unit; receive and check all incoming stock and properly place in the storeroom; maintain records of stock received and dispensed from the storeroom; maintain records for all stock delivered to the nursing units; and maintain records and receipts for all tax-free alcohol dispensed.

A parenteral laboratory senior technician will supervise parenteral laboratory junior technicians and generally assist the parenteral laboratory supervisor in manufacturing large-volume parenteral solutions. He may be involved in supervising environmental control or proper cleaning of the entire parenteral manufacturing area daily; consulting with the parenteral laboratory supervisor regarding the parenteral manufacturing schedule; weighing out manufacturing ingredients to have them checked by the supervisor; supervising the preparation of closures and containers in accordance with the procedure manual; checking to insure separation throughout the entire operation of all solution batches identified in process; maintaining accurate batch process records; taking appropriate samples for analysis and sending samples to the bacteriology and chemistry laboratories for analysis and sterility testing; maintaining an up-to-date inventory of all equipment, labels and chemicals used and needed; as well as a variety of related duties.

Prepackaging and labelling of required drugs and maintaining packaging records are basic responsibilities of the packaging technician. These duties include prepackaging drugs for dispensing purposes; labelling all prepackaged items; storing prepackaged items after a batch has been checked and released by the pharmacist; maintaining all required records, including

batch number, lot number, company and quantity for each prepackaged product; and maintaining an adequate supply of prepackaged items.

While I have discussed only a few of the various types of pharmacy technicians in use today, one need only use the imagination in order to begin to realize the virtually limitless number of possibilities for use of such supportive personnel in pharmacy, provided the pharmacist remains accountable by legal, professional and ethical standards.

Supportive Pharmacy Personnel Training Programs

Unfortunately -- or perhaps, fortunately -- uniformly designed and accredited training programs for supportive personnel in pharmacy are not available. The training programs in use today may be classified as one of the following three types: formal, informal and combination training.

While some programs are presently conducted by schools and colleges of pharmacy, community colleges represent the principal site of present-day formal training programs for pharmacy technicians or pharmacy assistants in the United States. These are normally two-year colleges which provide classroom instruction mainly but which may also have cooperative arrangements with local hospital pharmacies in order to provide a laboratory component in their courses of instruction.

Informal training programs are comprised of on-the-job training under the auspices of the pharmacist. The pharmacist trains an employee to perform specific functions required for meeting the immediate needs of the particular hospital or community pharmacy. Needless to say, this type of training is limited in scope and adequacy and is usually weak in theoretical and classroom instruction.

In a combination training program, the opportunity to utilize both classroom and laboratory instruction in the training of the technician is capitalized upon. Normally, a community or university college will develop a cooperative program of specified duration for training students to perform certain specific supportive functions for the pharmacist.

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Although training concepts and course content vary considerably from locale to locale and on the basis of job title for which a technician is being trained, programs will normally include such basic courses as jurisprudence, pharmacy policy and procedures (usually in hospitals), history of pharmacy, actions and uses of drugs, pharmaceutical dosage forms, mathematical terminology used in pharmacy, dispensing systems, supply management, pharmaceutical and medical terminology and communications.

While the need for qualified pharmacy technicians is questioned only among certain community pharmacy practitioners -- who may, however, be utilizing pharmacy assistants under some other nomenclature -- the type and length of training are frequently debated. At this juncture, suffice it to say that the important point in my opinion is that the areas of need for such supportive help should be carefully defined in terms of the specific ^{which} non-professional tasks/can and will be delegated by the pharmacist. Once the specific tasks have been identified and studied, it becomes rather straightforward to determine the areas in which these personnel are to be trained. The depth of training in any particular subject matter area depends on the level of delegation of responsibility which can legally and ethically be made by the pharmacist with respect to each of these tasks. The number and complexity of the tasks to be performed by the technician as well as the depth of training in each particular subject matter area will largely determine the required length of the training program.

Summary

Health-care services are costly. Black communities universally share in an acute shortage of primary care health professionals. In order for the pharmacist to contribute maximally to cost-effectiveness and improved patient care, he must continue to join the growing community of health professionals utilizing supportive personnel in order to extend their services

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to rapidly growing, health conscious and health-care deprived populations.

The American pharmacist is becoming more and more clinically or patient oriented in concept and practice by virtue of training programs which emphasize patient-care rather than pecuniary benefits for the professionals themselves. The American pharmacist is being accepted more widely by the physician, nurse and other health-care practitioner as a legitimate member of the clinical team. In hospital and community practices, the American pharmacist is contributing to improved health care by undertaking unique roles as the drug information specialist on the health-care team. As he becomes more and more involved in the performance of such vital functions, pharmacist extenders or technicians become increasingly necessary.

Supportive personnel in pharmacy can be trained inexpensively and within short time frames and can provide a wide range of highly specialized services in extender roles.

Health-care systems planners for predominantly Black communities should and must consider this alternative to training much larger numbers of pharmacists, nurses and physicians, especially when one considers that the numbers of such professionals required to provide quality health care to the numbers needing their services are beyond the realm of practicality for the foreseeable future.

And who must take the lead in this effort? The Black university can and must accept this responsibility.

"The Maternal and Child Health Training Program
at
Meharry Medical College"
by
Pearline Gilpin
Presented at the first International Conference
on
"HEALTH PROBLEMS OF BLACK POPULATIONS"
February 5, 1975

The Maternal and Child Health/Family Planning, Training and Research Center was established at Meharry Medical College on July 1, 1971, with a grant from the United States Agency for International Development.

The Center has a multinational and Multidisciplinary team of public health specialists who serve as an international training and advisory corps in MCH/FP. Meharry's support to the Center is enhanced by Program ties with other Universities in Nashville as well as Health care facilities such as the Lee County Cooperative Clinic in Arkansas; the Delta Comprehensive Hospital and Health Center in Mississippi; the Family Planning Center, Harbor General Hospital, Torrence, California; the Maternity and Infant Care Program, Berkeley City Health Department Berkeley, California; the Health and Hospitals Corporation, Harlem Hospital Center, New York City, New York; and the John Sealy Hospital, the University of Texas, Galveston, Texas.

The major training function of the Center is to provide course work and field internship which will help both African and American public health personnel to assist in developing and introducing integrated maternal and child health and family planning services in African countries.

The first group of African MCH/FP trainees sponsored by the Center arrived at Meharry September, 1972. This group came from Kenya. Since that time, some forty-two additional African health professionals from seven other countries Botswana, Ethiopia, Lesotho, Liberia, Nigeria, Soerra Leone, and Swaziland have participated in the training program. Participants have been prepared in the fields of Nutrition, Environmental Science and Maternal and Child Care. The greatest number of our participants have been nurses and midwives who have been trained in MCH/FP.

Further the Center awards fellowships to third and fourth-year medical students and graduate students from other disciplines, affording them the opportunity of going overseas to work and study in areas of MCH/FP.

The MCH/FP Training Program consists of 8 weeks didactic study in the Center at Meharry, at which time the student is taught concepts of modern Obstetric theory, Family Planning Theory, Nutrition, Maternal and infant statistics, Environmental Science and pediatric management. The objective in teaching these areas to our participants is to assist them in providing comprehensive maternal and child health care with family planning. We believe that the nurses and midwives who work with mothers have a very good opportunity to improve the general health of the whole family. We have recognized that very often it is poor environmental sanitation and poor nutrition which is the cause of the conditions we encounter. By teaching mothers how to better maintain sanitation and proper nutrition we can improve the health status of the whole family.

After the participants have completed the didactic portion of the course with some clinical observation of special services in Nashville, they are assigned to one of the health centers affiliated with the MCH/FP Center for 6 weeks of clinical practice. During this period, they work with patients in various clinics, they have an opportunity to apply the concepts and techniques learned in the didactic part of the course. And to practice special skills. After completing their clinical assignment they return to Meharry for a final review and evaluation of the training and experience gained. This completes the training program and the participants then return home.

It is anticipated that the Nurses and Midwives who come to Meharry will go back to their homes and provide these services, they were prepared for; they will act as seed teams and will later help to prepare other nurses and auxiliaries in the delivery of comprehensive maternal and child health; family planning services.

In July, 1974 the training coordinator from the MCH/FP Center visited some centers in Africa where graduates of this program are now working. Most of these graduates were found to be providing the services for which they were trained.

We hope to continue this training and to provide necessary assistance in other areas as these are identified and additional programs can be developed. We recognize that funding is becoming more difficult but many areas will be explored.

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"Field Training for Auxiliaries"

- (a) Types
- (b) Facilities

Participants

Dr. Poindexter	Chairman
Dr. Kaiashain	Co-Chairman/Rapporteur
Miss Kennedy	Co-Rapporteur
Dr. Eason	
Dr. Harper	
Dr. Kagia	
Dr. Ragbeer	
Miss Simpson	

It was recognised that there are many types of sub-professional personnel used in many countries in health care delivery systems, often under different titles. The following are some of the major groups:

- Physician/Medical and Dental Assistants
- Nurses, Midwives and MCH Assistants or Aides
- Laboratory Technicians and Assistants
- Pharmacists and Anaesthesia Assistants
- X-Ray Technicians and Assistants
- Physiotherapists and Occupational Therapists
- Biometrician and Statistical Assistants and Data Collectors
- Sanitarians and Pest Control Personnel
- Health Education Assistants
- Nutrition Assistants
- Administrative Personnel including Medical Recorders, drivers, etc.

It was suggested that planning for the training of each type of auxiliary could be comprehensively covered under the following headings:

- (1) Category of worker
- (2) Total number required per 1000 or 10,000 of the population, taking into account any political or economic/budgetary limitations
- (3) The criteria for selecting trainees
- (4) The length of the training programme
- (5) The content of the course
- (6) The supervision and directing of training
- (7) Evaluation
- (8) Estimated cost per person

It was agreed that although many developing countries had similar health problems, each country had to work out its own training programme to suit its own peculiar circumstances. It was therefore necessary to carry out a survey of the health needs in the community of a particular locality in order to determine the type and number of health units (e.g. health centers) needed and the type of staff most capable to deal with the local health problems. In this way a detailed job description could be drawn up for each cadre of staff and the training programme designed to fulfil the specific requirements. It was pointed out that by restricting the course to only those

duties that the trainee will be called upon to perform in the field, many training courses could be substantially shortened. For example, a primary midwife could be trained in 1 to 2 years instead of the usual 3-4 years when midwifery is combined with general nursing. It should be recognised that a person does not have to be a general nurse to provide good midwifery services. It was also suggested that as midwifery constituted a major problem area in most rural communities, there was no reason why male nurses should not be trained in this field.

The health services required in any rural community were broadly classified into three fields: curative, promotive and preventive. It was recommended that every health worker should be trained to contribute to each of these fields, although his/her duties may fall mainly into one or other of them. As many of the health problems in developing countries are pre-ventable, the emphasis should be placed towards the preventive aspects of health care, particularly directed toward education of the people. A typical rural health centre was cited, which was staffed by three main workers: (1) a medical assistant, who performed the duties of a physician but had a wide community health background including sociology and preventive medicine; (2) a community nurse, with training in general nursing, midwifery and public health nursing; and (3) a health assistant or assistant sanitary inspector, whose training was

primarily in environmental sanitation problems e.g. food hygiene and sewage disposal systems. It was also felt that a driver was necessary to transport personnel within and outside the community. For such personnel to be able to operate as a health team in a rural area, it was imperative that they should be trained together, preferably in a rural setting similar to their future field of work to ensure adequate exposure. They should also be trained to take leadership or obey directions when called upon to do so. In other words, although regarded as "auxiliary", such workers in the field are practically independent and should therefore be capable of taking full responsibility, although recognising their limitations.

It was emphasised that field training was essential for the higher cadres of health personnel as well as e.g. physicians and nurses, if they are to function as members of the health team. This would also help to reduce the reluctance often prevalent among such workers to be posted to work in rural areas.

It was recommended that whatever training programmes were introduced, the views of the community must be kept in mind from the planning stage and throughout the programmes as a means of continual evaluation. Above all, all programmes must be feasible and realistic.

In summary, the main recommendations from Working Group I-Field Training for Auxiliaries were: (1) To survey the health

needs in the community of a particular locality in order to determine the type and number of health units and staff capable of dealing with the specific problems; (2) To train every health worker in health services described as curative, promotive, and preventive with major emphasis on the latter through health education of the people; (3) To train higher levels of the health profession in the field to encourage the health team concept; (4) To introduce only training programs that are adaptable and feasible in the views of the community; and (5) To evaluate all operating programs in the community on a continuing basis.

TO: DR. MARGARET GRIGSBY

FROM: DR. SHIRLEY EVANS
CALIFORNIA STATE UNIVERSITY, NORTHRIDGE
NORTHRIDGE, CALIFORNIA 91324

RE: WEDNESDAY AFTERNOON SESSION
FEBRUARY 5, 1975

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WORKING GROUP II

Wednesday afternoon, 2:00 - 4:30 p.m., February 5, 1975

Chairman: Dr. Frederick Wurapa
Co-Chairman & Rapporteur: Dr. Patricia Niles
Assistant Rapporteur: Dr. Shirley G. Evans

THEME: The Team Approval to Health Care Delivery

- a. Techniques
Leadership
Coordination
Communication
Administration-Management
Human and Public Relations
- b. Health Service Strategies - Professional
Supplementary to Medicine and Auxiliaries.
Providing services through coordinates
Tasks and Procedures.
Health Problem Analysis
Program Planning Techniques

Dr. Wurapa suggested that the group conclude this work session with realistic, concrete recommendations for:

- 1) the composition of a health team;
- 2) the working order of the team;
- 3) and the aspects related to administration techniques, coordination, etc.

Dr. Wurapa also suggested that the group accept the following definition for discussion purposes this afternoon; a health team here is designed to deliver comprehensive health care in a center setting.

Dr. Davidson: University of West Indies described the health team model used in Jamaica. The four man team includes:

- 1) the public health nurse (team leader)
- 2) the community health aide
- 3) the records officer
- 4) the pharmacist (which may be a nurse)

This model was used in a pilot project in a Well Child Clinic setting in 1972. It has now been set up as a module using the University personnel for teaching purposes.

The concept of the public health nurse taking the leadership role on the health team was formulated in order that the m.d. be released for other duties. In order for the health team to function effectively in this center setting, the center had to be reorganized so that patient flow would be quicker and easier. The reorganization resulted in this scheme:

- 1) the first station in the health center is the records officer.
 - 2) the second station is that of the community health aide (a person with 3 months training for this position)
 - 3) the third station on the patients' trip through the clinic is that of the public health nurse for diagnosis and treatment
 - 4) the social worker and/or the community health works with the patient if necessary at this station.
 - 5) the pharmacist is the last station in the health center
- If necessary in this setting, the patient would be referred to the doctor.

Before this health center concept with the public health nurse in the leadership role was introduced into the community, there was excellent community preparation: the idea of patients coming into the center and not seeing a doctor was a new one and ground work had to be done on the grass roots level. Health education councils in the villages helped with this task.

Dr. W. Rutasitara, Tanzania

The delivery of basic health care depends upon local priorities. In Tanzania, health care is directed toward:

- 1) Care of ill persons
- 2) Environmental problems
- 3) Communicable Diseases
- 4) Maternal and child care

- 5) Health Education
- 6) Record keeping
- 7) Home visits

Secondary care recently introduced in one center setting include:

- 1) Dental care
- 2) Care of the aged
- 3) More-communication disease control i.e. heart disease, etc.

Dr. Thompson: Nigeria

The prime concept for health centers in Nigeria involved around the idea that the health center depends upon the needs in the area. Leadership of the health team automatically is that of the doctor. If the physician is not present the public health nurse assumes that role.

Dr. Wurapa: Ghana

Leadership of the health team falls into two categories: formal and informal. Therefore, the leadership of the team is flexible.

Dr. Niles: U.S.A. Howard University

Health planning, political awareness, health administration, health content should all be components as far as the background of the team leader is concerned. The medical doctor may or may not assume this team leadership role.

Dr. Grisby: U.S.A.

Suggestion to the group - Define what the health team would be doing so that the role of the team leader would be clearer. Opinions from

current literature and personal feelings are that the physician should be the health team leader. Legal responsibilities prohibit others from heading the health team in most countries.

Dr. Joycelyn Elders - U.S.A., University of Arkansas

In a team approach to combat diabetes (at the University of Arkansas) all team members knew the role they were to play. Tasks were clearly defined and each member worked within that sphere, but worked across lines when necessary for the best interest of the patient. There was a team leader designated but no one knew who it was and all went smoothly. The five man team consisted of:

- 1) A social worker
- 2) A public health nurse
- 3) A family physician
- 4) A nurse/practitioner
- 5) and a nutritionist

Dr. Sinnette: U.S.A., Harlem Hospital

Suggestion: The group needs to examine the team approach. Look for its merits in regard to cost, cost benefits, resources and levels of health care.

Dr. Wurapa: Ghana

Appealed to the audience to: 1) define what the health teams are to do; 2) who composes the team; and 3) and for what function.

Dr. Thompson: Nigeria

Extension of the health center services if found in sub-health centers and in homes.

Dr. Davidson: West Indies

Question: Why does a health team need a leader?

Dr. Wurapa: Ghana

Answer to Dr. Davidson's question -

A health team leader is needed for coordination, smooth functioning etc. Health teams may or may not be permanent but may vary from problem to problem and/or country to country.

Dean Mann - U.S.A., Howard University

Question: How is the education or the skill acquired by the health workers upgraded once formal training has been completed?

Dr. Thompson: Nigeria

Answering Dean Mann's question -

Upgrading and updating of health workers is done through a variety of methods which include:

- 1) WHO Regional Centers
- 2) Quarterly meetings at the University or at the hospital or in the health centers.
- 3) Rural health center seminars are held on a yearly basis for an 8-week period for all health workers.
- 4) Regional medical officers organize seminars around particular health problems.
- 5) Training is done by the staff of the Department of Community Health.

Dr. Sheppard - U.S.A., Howard University

In neighborhood health centers, continuing education and communication teams have been directed to meet together and come to a group decision regarding problems arising in the centers in terms of patient care. Therefore, the role of the university must be to work in the direction of analyzing the role of each team member so that each member can be trained for cooperative action.

Dr. Grigsby: U.S.A., Howard University

Communication must be a two-way avenue to the community and workers then back to the "powers that be" so that problems may be anticipated and prepared for.

Suggestion to group. Try to diagram how the health team should be composed on a variety of levels.

Dr. Sinnette: U.S.A., Harlem Hospital

Suggestion: Strategies should be formulated for involving others in the community (political, governmental, private etc.) to support the members of the health team.

Dr. Davidson: West Indies University

Coordination with other public institutions help to insure the success of one's program.

Dr. Thompson: Nigeria

In Nigeria, 10% of the state budget is earmarked for health care. 3% of this goes to preventive care. It is therefore important to find other resources and invalue more than just medical people on a health team.

Dr. Wurapa: Ghana

Good coordination at the local level may help health care delivery dollars. Public relations becomes a prime factor when budget matters are concerned.

Dr. Niles - U.S.A., Howard University

Expressed concern for the role of the consumer in the delivery of health care.

Dr. Sheppard: U.S.A., Howard University

The most important person in a health center is the consumer of course. However, physicians are not trained to consider this. Dealing with groups of people, their desires, needs and concerns must be built into training and education of the physicians and other health workers. The ability to translate the needs of the people into a workable plan.

Dr. Thompson: Nigeria

Regarding consumer participation: In Nigeria, there are monthly meetings of ward health committees from the community to air concerns, problems, etc.

Dr. Rutasitara: Tanzania

Involvement takes place at both the grass roots level and also at higher planning levels. The levels are as follows:

- 1) Village level
- 2) District Development Committee
- 3) Regional Planning Committee
- 4) National Planning Committee

Dr. Bwibo: Kenya

The Ministry of Planning and Finance assist in evaluating progress in the country. At the district level, the district planning offices utilize local people in their planning.

Dr. Davidson: West Indies

In his country, consumers are involved when and where appropriate.

Dr. Wurapa: Ghana

Asks for specific recommendation from the group regarding the original agenda.

Dr. Grigsby: U.S.A.

Recommendations:

- 1) The need for a health team must first be established.
- 2) Health teams must not work at cross purposes.
- 3) There must also be good coordination of team efforts.
- 4) The health team must meet the needs of the community.
- 5) Within the team, the definition and role of each team member must be clear.

CONFERENCE OF HEALTH MANPOWER DEVELOPMENT

AND

THE ROLE OF THE UNIVERSITY

SPONSORED BY HOWARD UNIVERSITY

COLLEGE OF MEDICINE IN ASSOCIATION WITH THE
AFRICAN-AMERICAN SCHOLARS COUNCIL

FEBRUARY 3-7, 1975

WASHINGTON D.C.

THE TEAM APPROACH TO HEALTH CARE DELIVERY

BY

F.K. WURAPA
UNIVERSITY OF GHANA MEDICAL SCHOOL

JANUARY, 1975

INTRODUCTION

The need to develop appropriate health care delivery systems that are acceptable to the isolated and rural communities in the less developed world is now recognised as a matter of great priority by health administrators. However, there has not been a successful demonstration of a combination of systems that can accomplish this objective. Within the African region, the basic health services through which the majority of the population receive health care are still in the early stages of their development. Most of these countries have theoretical plans for an integrated basic health services. In practice, however, the peripheral end of this health care system has been neglected while the national hospitals and a few regional hospitals receive most of the allocated resources. Because of the large populations of these countries that live in the rural areas and because of the poor environmental circumstances in these parts, even the modest investment of resources in the development of curative health services have failed to make the expected impact on the health of the population. It therefore appears that a study of more effective approaches to health care delivery that emphasises the disease preventive and health promotive aspects is called for in these countries.

Recently, several countries in the African region have embarked on a rather ambitious programme aimed at strengthening their basic health services. As a result of the type of health problems found in these countries and the level of health manpower available, it has become necessary to plan definite strategies for resolving the problems. Such strategies have set as objectives, the delivery of comprehensive health care to rural and isolated populations.

Because of the multi-disciplinary aspects of these comprehensive health care programmes, it has become necessary to adopt a team approach to the solution of the health problems. One might ask at this point why a team approach is needed for health care delivery.

The first reason is that the multiple factors responsible for the occurrence and distribution of disease requires the joint effort of interdisciplinary health team for effective accomplishment of the task. Secondly the variety of skills needed to plan programmes, train health workers and provide both curative and preventive services require the services of individual with various types and levels of training and background. It must be added that for this kind of an interdisciplinary group to effectively carry out their various programmes, the community must also be involved. For the purpose of this paper the health team is define as all members of "Staff" that are needed within the community as well as the various cadres of trained health workers to deliver comprehensive health care including M.C.H., personal first level medical care,* Health Education, Immunization, Communicable diseases control, Nutrition education and Family Planning to a Community.

This paper will discuss the following aspects:-

- a. The concept and functions of a health care team.
- b. Strategies to develop health services.
- c. The potential role of the University in carrying out training, research and practical demonstration of more acceptable health care programmes in collaboration with the Government. The unique role of the University to carry out:-
 - a. Research to clarify problems and needs.
 - b. Demonstration projects to study approaches to rural health care.
 - c. Training health professionals in technical and managerial skills and instill concern for improving health care in the isolated communities into the graduates of the University.

TECHNIQUES:

The basis for developing a functioning health team is a careful plan that takes into consideration the health problems to be solved in relation to the manpower resources and facilities.

* By personal first level medical care is meant the management of those illnesses predominantly found in the rural areas plus the ability to screen out those patients who require attention of the medical officer or the hospital.

First there must be a definition of the health problems within the population to be served. This usually implies that a community diagnosis be carried out. Next the priority health problems need to be ranked according to some mutually agreed upon criteria. Programmes embodying solutions to identified problems are then developed. In the development of the programmes, it is, important to relate the activities to the type of manpower and facilities that are available.

At this stage, a clear description of tasks that individual team members will perform must be jointly developed, by the individual workers and the other team members. It is the interaction between these various components of the planning matrix that defines the characteristics of programme administration, execution and evaluation of the health team. In general the pattern of health problems around which programmes should be built do vary from country to country. However, it is true to say in the African region that the high morbidity and mortality rates in mothers and children constitute a common major health problem. Accordingly programmes of most health teams engaged in the delivery of comprehensive health care in the African region will continue to be mainly concentrated on maternal and child health.

LEADERSHIP:

The successful planning of an appropriate programme and its implementation depends on the availability of competent leadership. The successful implementation of the various steps described under techniques above will depend on the kind of leadership the health care team has. The traditional concept of leadership based on the role that each health worker sees himself or herself playing as a member of a team, certainly impedes effective team work. The physician, for an instance, because of his traditional role as "the leader" of a patient care team has been considered by some as an automatic leader of a health care team for a community. The leader of the health team does not have to be the individual with the highest level of training. Because of the multidisciplinary nature of the areas of work of the health team, whoever the leader of the team happens to be, must be prepared to exert a different type of leadership from that required for a patient care team.

Leadership of a health care team must aim at taking advantage of the synergism that can be created among the various members of the team. This means that the leader must be prepared to deploy each member at his highest level of competence. This kind of flexibility is essential because of the multidisciplinary areas that the modern health care team has to operate in. For example, the field superintendent of a medical field unit in West Africa can well be recognised as the leader of the immunization team as far as certain aspects of the field organisation are concerned. The physician member of the team by encouraging the field superintendent to direct the team in certain operations confers status and authority on the superintendent and consequently a greater sense of accomplishment in the superintendent. What effective leadership of a health team implies therefore is a flexibility and willingness to cooperate and collaborate on the part of the leader so that capable individual members of the team are given a chance to direct the teams effort in certain activities. There is therefore room for informal as well as formal leadership in the management of the modern health team.

COORDINATION:

An essential attribute of a good team leader is his ability to coordinate the efforts of other members of the team. It is much easier for the leader of a surgical team engaged in an operation involving the resection of a diseased colon, for an example, to coordinate the efforts of the team than it is for a leader of a community based health care team to do the same. This is essentially because while the leader of a surgical team has a relatively homogeneous team dealing with a clear cut problem and an unmistakable objective, the leader of a community based health team is faced with a heterogenous team whose tasks and objectives are not usually so clearly defined. Furthermore, while the surgical team leader can use a one-way command hierarchy to accomplish the task of the team, the community based team leader can only successfully employ the group problem-solving approach. Such a two way channel of communication puts a considerably greater demand on the ability of the community based team leader to coordinate than that required for leading a patient care team.

In the absence of effective coordination one finds in a community health delivery system several organisational units each trying to solve an aspect of the community's problem but having no coordination of their activities. The obvious result is that the potentiating effect that each one of these units can have on the other is lost. The lack of coordination in health care delivery where health has been defined as comprehensively as possible today, has become a serious set back in the effort to extend health services to the rural and isolated populations.

COMMUNICATION:

Another factor that tends to impede the effectiveness of community based health care teams is inadequate communication. In the process of utilising the group problem-solving approach, care must be taken to be sure that the objectives to be attained are clearly communicated to the team. As a basis of a clear communication, it may be necessary to give the team verifiable results to achieve as well as the necessary resources required to achieve the results. The participation of individual members in the identification of the agreed upon objectives is very essential. An aspect of effective communication also has to do with joint evolution of specific tasks that individual team member should perform. Although task descriptions are not easy to develop for community based health teams, it has been found that where the individual worker is involved in describing what he does, the product - "a living description" comes closer to the actual working situation of the individual members of the team than traditional job descriptions. Such mutually worked out task descriptions can help establish adequate communication between team members. Finally in evaluation of the team's achievements, the criteria for evaluation should be clearly communicated to the team members, from the beginning. At the end of the evaluation exercise, the findings should equally be made known to the workers. Effective communication among members of a health team can be achieved through a group problem-solving approach.

ADMINISTRATION:

The comments so far made on the obstacles to effective team work can be applied to the management of team work. For, a systems approach to the functioning of the team would call for the various obstacles inumerated above to be removed if an efficient team is desired. Some of the problems faced in the management and administration of community based health care teams are:

1. The different backgrounds and experiences represented on such teams.
2. The cultural difference between the members of the team.
3. The difficulty of achieving effective first line supervision.
4. The problem of an inadequate record system leading to poor communication between team members as well as inadequate information about consumers of the team's services.
5. Another major problem is the tendency on the part of the unit heads or chiefs of most community based teams to operate in their individual compartments without any desire to cooperate or collaborate with other sections of the team's effort.

By and large these have been problems that traditional organizational structure of medical care facilities have created in the course of their evolution. What then can the modern manager of a health team do to improve the situation? Clearly, the answer appears to lie in the strengthening of the various components of activity units of the health team as a whole. But at the same time endeavour to articulate each unit of activity with another from the operational level up to the supervisory level. The implication of such a proposal are that: Organisational structure becomes much more demanding. The lines of authority are less clearly defined and decision making becomes complicated and ambiguities arise. There is the likelihood that tension and anxiety would be generated among the staff. Under such circumstances the tendency would be to revert to the traditional system of a more comfortable routine of clear authoritarian set up. However, the major virtue of the more difficult alternative is that it is dictated by the needs of the patient and the community that the health team is purported to be serving.

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Modern health planners have recognised that involvement of the consumers of a health care services, in the entire process is essential to the very success of specific programmes. What has been said about maintaining good human and public relations within the health team therefore applied even more to the community for which the health care is organised. Within the health team, good human and public relations can assist greatly in achieving maximum coordination of the team members' effort. At the community level, effective human and public relation can be the only sure way to obtain the community's participation. For most of the programmes that health teams in the African region are engaged in, community participation is crucial to their success. Some of the most important health care decisions for example must be taken by individuals and families to feed their children differently, to be concerned about the source of their water and to limit the number of their children or space them differently. There has recently been a renewed effort in some Ministries of Health in the region to develop new programmes that place greater emphasis on the community's active participation in health programmes. The modern techniques in health planning and administration would appear to me to be justified only to the extent that they succeed in achieving acceptable health programmes for the people that the health teams are supposed to be serving.

STRATEGIES TO DEVELOP HEALTH SERVICES:

There is a need to strengthen the basic health services as a means to providing a frame work within which the health team would work. The improvements necessary can be stated as follows:-

1. A better information gathering and dissemination system is need.
2. Clear objectives about geographic and population target groups. must be set.
3. Expanded use of auxiliary and voluntary community workers is necessary to supply adequate manpower.

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As Bryant (1973) has pointed out, all of these requirements have been known for some time now. However, the failure to concentrate enough attention on the details of these principles has been responsible for the failure. What model programmes of basic health services can one recommend? In view of the economic as well as the sociocultural circumstances of the countries in this region, a health care delivery for any country must be low cost. Emphasis must be laid on the development of peripheral health facilities i.e. health posts and satellite clinics. The development of suitable cadre of auxiliary health workers must be given high priority. In the development of the various auxiliary staff, care must be taken to define clearly the tasks of each cadre and specific instructions regarding various procedures must be carefully drawn out. Provision must be made for continuous training as well as careful supervision by experienced professional health workers. The rationale for adopting these strategies has been that in most of the countries of the region, resources both manpower and facilities are scarce and a traditional orientation toward individual patient care as well as a low level of community involvement in health programmes have contributed to rather inefficient health services systems.

THE POTENTIAL ROLE OF THE UNIVERSITY:

Many African Universities have accepted the role of collaboration with their Ministries of Health in several ways to develop basic health information. First, the Universities have the resources. Secondly, in several countries the University Medical Schools have been operating demonstration rural health districts where experimental, low cost delivery methods are being tested e.g. in Nairobi, Kampala, Dar es Salaam, Ibadan and Accra. Thirdly, Universities are more free to experiment in health care delivery or inovative roles (e.g. the use of volunteers, traditional birth attendants). than the Ministry of Health. Finally, the University can educate health planners in technical and managerial skills and perhaps even more important, instil a concern in their graduates to become involved in resolving the serious inequalities in health care.

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The Medical School of the University of Ghana has been involved in medical research including:

- a. Sickle cell haemoglobinopathies.
- b. Liver disorders.
- c. Hypertension and cardiovascular diseases.

More recently, the school has undertaken a large scale demonstration rural health project involving some 60,000 villagers with the support of USAID. The 8 year long Danfa Project is concerned with the testing of several approaches to delivery of comprehensive health care, using a team of auxiliary health workers and staying within a feasible cost frame work.

The basic research investigations have included:

- a. Birth and Death rates.
- b. Vital registration.
- c. Maternal and child health practices.
- d. Epidemiology of common health problems.
- e. Functional analysis of the Danfa Health Centre Staff and its satellite clinics.
- f. Factors affecting attendance at health surveys and other community health programmes.
- g. Impact of health education and Maternal and Child Health/Family Planning (MCH/FP) programmes in improving morbidity and mortality levels.
- h. The use of traditional practitioners and volunteers in expansion of health services.

The Danfa Project has a training objective as well as its research and health delivery demonstration concern. A number of medical investigators are collaborating in field epidemiology studies, while University departments (demography, economics, sociology) are studying behavioral and socioeconomic factors related to health care. A number of faculty are also engaged in training paramedical health workers. Another area of cooperation between the medical school and the Ministry of Health is the planned administration of an urban health centre with a service population of 80,000 in the western part of Accra.

The Department of Community Health of the Medical School is also involved in training experienced medical officers from the Ministry of Health in techniques of Community Diagnosis and the organisation and management of Maternal and Child Health Programmes.

These are only a few areas in which Universities can contribute by way of collaborating with Ministries of Health in carrying out research aimed at generating useful information which is badly need for planning health services. There are other areas of collaboration in which Universities and Ministries of Health need to collaborate such as training and manpower development, planning the health services - topics which have been covered in this conference by other contributors. It only remains to restate therefore that the team approach to health care delivery will only succeed if a true team spirit is fostered between the various members including Ministries of Health and the Universities.

S U M M A R Y

The current need in the less developed countries to develop a suitable health care delivery system that is also acceptable to the isolated and rural populations has been outlined. The special circumstances of these countries with regard to resources and facilities were related to their need in defining a comprehensive health care system delivered through an integrated basic health service. The delivery of a comprehensive health care, to such communities, it was contended, can best be carried out through the team approach.

Some aspects of effective team organisation for delivering health care were considered. These included techniques, leadership, coordination, communication and administration. When a health team has been successfully put together their effectiveness will depend on the care with which the health service strategies upon which their programmes are dependent are conceived and executed. Some suggested ideas that have been found useful in developing strategies were discussed. Finally, some special features of the basic health services of countries in the African region were enumerated and commented upon.

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For the success of the health care strategy of any one of these countries, it was pointed out that the team approach to the planning, organisation, execution and evaluation of the health programme must involve teams made up of staff from the Ministries of Health as well as the Universities. Some current collaborative programmes between Universities and Ministries of Health were mentioned with some further elaboration on the situation in Ghana.

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Thursday, February 6, 1975

LONG-TERM HEALTH PLANNING FOR THE
AFRICAN REGION
1975 - 2000

Dr. Hamad El'Neil

OBJECTIVES

General Objectives

- develop university institutes or centres for health sciences in most countries, for training the various members of health teams, including auxiliary staff;
- reorientate the traditional type of educational establishments towards a more rational approach to training problems;
- apply systems analysis techniques to health manpower training problems;
- integrate multidisciplinary education;
- provide pedagogic training for health sciences educators;
- ensure continuing education, through organized systems for retraining and continual further training;
- develop public health education;
- improve coordination between educators and users of health manpower.

IMMEDIATE OBJECTIVES

Manpower

- 1 doctor for 5000 - 10000 inhabitants
- 1 nurse and 1 midwife for 300 inhabitants
- 1 technician for 500 inhabitants
- 1 sanitary engineer for 25000 inhabitants
- 1 sanitarian for 1500 inhabitants
- 1 auxiliary for 100 inhabitants

RESOLUTION AFR/RC21/R6

The Regional Committee recommended

- develop, as from 1980, ten-year health plans;
- improve the collection and analysis of statistical data with a view to rational planning of health personnel needs;
- establish or develop the necessary training centres for producing qualified professional and auxiliary staff in sufficient numbers and possessing the requisite qualities;
- accord particular attention to the problem of rational utilization of trained staff by evaluating activities in regard to development of human resources every five years.

For example it was reported from some countries in the Region that out of all children presenting with fever at hospitals only 20% had a positive slide for malaria. The other 80% had acute tonsillitis, pneumonia, otitis media, or gastroenteritis. Such studies provided the basis for the construction of diagnosis flowcharts at one medical school in the Region. When tested on medical students in the first year of clinical studies, there was 95% agreement with the final diagnosis made by an experienced clinician.

Dr. Hamad El'Neil

INTRODUCTION - SOCIOECONOMIC CONTEXT

1. In 1970, the socioeconomic structures of the African Region were those of countries in the process of building up their equipment. The Region is a complex one and has its inherent difficulties. It covers Africa south of the Sahara, including Madagascar and other islands and archipelagos in the Atlantic and Indian oceans. It comprises 34 Member States and associate members together with territories such as Angola, Mozambique, etc., which are not yet independent. The events of 1974 encourage the belief that these two countries will not be long in acceding to international sovereignty. The environment is especially hostile. Indeed, from the dry and humid savanna of the equatorial forest to the forest of Guinea, we find all the requisite conditions for the pullulation of hematophagic arthropods, the vectors of various communicable diseases (malaria, yellow fever, onchocerciasis, etc.).

In 1973, the population totalled 270 million inhabitants, of which 43% were younger than 15, 53% between 15 and 60 years of age and 4% more than 60. The overall mortality rate is the highest in the world: from 17 to 29 per thousand, the world average being 14 per thousand; the infant mortality rate (infants under one year of age) is in the region of 150 per thousand, that is to say ten times higher than the rates in Europe and North America. The annual natural growth rate of the population is about 2.5% for the Region as a whole, the highest rates being 3.8% in Rwanda and 3.1% in Mali, while the lowest are in Central Africa, the rate in Gabon being 0.5% and in Cameroon 1.9%. The low density population of some 15 inhabitants per km² is comparable

to that of America and the Soviet Union, lower than in Asia (72) and in Europe (93) and higher only than the density in Oceania (2). A higher ratio emerges when the number of inhabitants is compared to the area of arable land (400 inhabitants per km² in Mauritania). Neither is this very young, low density population highly urbanized, since between 80% to 90% live in rural areas. The vast majority of the labour force is accordingly employed in agriculture, a sector which occupies more than 60% of the active population. School enrolment, especially in primary schools, developed rapidly between 1960 and 1970, although the literacy rate remains low (20%). The gross domestic product (GDP) ranged in 1971 from \$70 to \$350 per head. Mining industries grew rapidly but their share of the GDP remained modest. Among the 25 least developed countries, 13 are in the African Region, according to the United Nations definition. It is based on such indicators as the GDP (at least \$100 per inhabitant), the share of industry in the total GDP (less than or equal to 10%) and the literacy rate (20% or less).

Resources being insufficient, the proportion of these allocated to social services is insignificant as compared to needs. Average annual expenditure on health is less than US \$1 per inhabitant. The slender resources are often badly utilized, especially local resources which are not made to yield as much as they could. Environmental sanitation conditions are unsatisfactory and even the most basic needs are not met. The present system of health services delivery is fragmentary and of limited efficiency due to faulty management. National guidelines and policies in the field of strengthening of services do not exist. In the delivery of services, the emphasis is above all on curative treatment at the expense of preventive measures. Health institutions are concentrated in the towns while rural areas are badly served. There is one hospital bed per thousand inhabitants in urban centres compared with only one

and for 10 000 inhabitants in the rural areas. The dearth of all categories of health personnel remains one of the major obstacles to the development of health services. Auxiliary staff are inadequately trained and badly utilized. The idea of health team has not yet become accepted and this leads to its members' tasks being badly defined and apportioned.

2. Future socioeconomic prospects remain gloomy in many areas. Results¹ after the first two years of the Second United Nations Decade for Development show that development problems, far from being settled, have continued to worsen. In many cases there has even been a regression compared with the situation prevailing towards the end of the previous decade. Developing countries have obtained some results in extending the benefits of economic growth following, in particular, the development of means of health education, the construction of economical housing for the poorest sectors of the population and other improvements, but much remains to be done, especially in bringing these advantages closer to rural areas. Demographic projections indicate that the population of the Region will total 340 million in 1980 and 560 million at the end of the century. Members of the 0 to 14 age group will increase while those in the over 15 group will decrease; 70% to 80% of the population will continue to live in a rural environment in most countries; in others, that proportion will be from 40% to 50%. Economic prospects will probably improve. Improved planning of manpower development and educational programmes as functions of national needs should lead to more satisfactory results in the field of education. From the point of view of health, there is likely to be a marked decline in infant mortality, increased life expectancy at birth, with chronic and degenerative diseases being among the most prevalent. The strengthening

¹ EB53/28, p.12.

of health services ensuing from integration of preventive and curative treatment, of institutions from hospitals to peripheral health centres, of fixed and mobile services should ensure better coverage of the populations. This is the ecological and socioeconomic context within which the various long-term targets have been envisaged.

- Slide 2 Objectives - General
- 3 Objectives - Intermediate
- 4 Resolution ATR/RC21/RS

The Health Team Concept and
the role of the University in
Nigeria

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The primary role of the University in any community is to spread learning through the prosecution of teaching and research. From being merely an art acquired through apprenticeship, medicine developed firmer scientific basis through its links with the University. Certification and validation of products of medical schools also being possible making for harmonization of medicine which is an international subject.

The health team concept demands that for each doctor, there must be many more health auxiliaries and paramedical staff who are geared towards providing primary medical care. The training of doctors/dentists have previously been discussed in our earlier paper. It is however still relevant to add that the intimate doctor-patient relationship must still remain sacred despite all the scientific and technological advances that have accrued over the last couple of years. Such advances

Regarding the diagnosis and treatment of many conditions have tended to have major effects on the pattern of medical practice in some parts of the world. It is even feared that the personal touch may soon be replaced by a team of technical experts. In the health team concept, the doctor must continue to preserve the personal relationship as the leader of his team.

The University could play an important role in the training over short periods of newly recruited trainees (medical or health auxiliaries). This would involve a redefinition of tasks and the provision of training relevant to the tasks these new auxiliaries will perform. This cadre of personnel who are lower in status than doctors should be given avenues for further educational and financial advancement through refresher courses. With their tasks well defined, the question of professional rivalry between such trainees and the doctors will not arise nor

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will the frustrations of the Yaba trained doctor who received less pay for the same job arise.

The training of other para-medical personnel which has been primarily the responsibility of Professional Organisations should continue to remain in these bodies. Government should make financial and other arrangements to ensure an expansion in the numbers of personnel trained while the retention of high standards should remain with the Professional examining bodies.

Involvement by the University of Ibadan in the training of para-medical staff like Community Nurses, Dispensary Attendants, Health Inspectors etc. is presently being proposed to take part in the Ibarapa Project. Since its inception, the Ibarapa Project has been used primarily by the medical students in their Community Health posting.

These students learn to work with other members of the health team and by working in a rural area, recognise at an early stage the problems of these communities.

Involvement of other medical schools in this kind of programme by an ever increasing number of medical students could change the orientation and motivation of doctors so trained to offer service in rural areas. Necessarily, the admission requirements of members of the para-medical health team will be lower than customarily accepted by the University. Proper Job Evaluation and performance would enable this cadre of workers contribute in the preventive and curative facets of medicine.

However, it is in the area of post basic education for the para-medical staff that the University of Ibadan shown interest. The existing requirements for admission to the Faculty of Medicine are so high that only students with

poorer grades than comparable medical students in any one year get admitted into the para-medical areas. Should integrated lectures with medical students be adopted as has been advocated in some schools, the need for repetition of lectures in view of students with weaker background will defeat any advantages integration may have. However, University commitment in the training of para-medical personnel will provide the teachers - administrators and research workers required by the para-medical bodies. Such graduates will carry out with them the priviledges inculcated by their education by cultivating disciplined attitudes of mind towards the profession and the community at large. Their role in the promotion of research in all aspects of health will make a positive contribution of the Health team's delivery of care to the community.

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WORKING GROUP II - Thurs. February 6, 1975

"HEALTH PROBLEMS OF BLACK POPULATIONS"

Manpower developmen and the role of the university.

Philosophy. Philosophy has been defined as the search for truth through a devotion to knowledge. In the medical arts and sciences, the philosophy must, of necessity be the epistemology of the humane and the pragmatic service of man. The profession of medicine conveys a message of hope for an improved quality of life, with the minimization of pain and postponement of death, and for an organic freedom which permits greater enjoyment and activity.. If this is true, then we must ask ourselves, "What is our responsibility to the community?"

Dr. Sheppard of Community Health Planning pointed out the dissonance of the narrowly individual practitioner with the felt needs of the community. What should the medical professions and the faculties of the universities do to correct this situation? Should the faculty members organize committees for policy and action? To what extent should the skills of other professionals than medical specialists be sought? Can the doctor work as a team member with other non-medical peers who are not subordinate to him?

Dr Drayton mentioned the indigenous practitioners, and the Honorable O.M. Harper pointed out the fact that the main resort of the people is to the local healers because of the absence of trained professionals; these untrained part time specialists render a great service to the sufferers of their locales. Should we then follow the examples of China, the Soviet, Ceylon and Egypt, and train the local healers in principles of first aid, and perhaps teach them elementary diagnostics and permit a minimal drug dispensary?

What rewards can be extended to induce professional medical personnel to serve in remote areas? Could work be undertaken by means of a rotational plan? Could mobile units be developed?

Research. One of the main reasons for the existence of university teaching in medicine is to conduct research. How can this work be increased and more closely related to health care delivery?

Should there be an increase of double blind tests of new medication?

How may we avoid the criticism of using members of the community for research, of raising expectations, and of failing to deliver the inferred health care?

Can there be an overall planning for improving the quality of life by integrating the knowledge, skills, and services of the entire faculty of non-medical staff as well as the health professionals? The need for communicational help has been mentioned several times in the course of the conference -- could linguistic and speech specialists, as well as public relations personnel be enlisted in a crusade for improved health and wider research?

Have the members of the medical faculty the imagination, the breadth of vision, the idealism, and the administrative gifts necessary to integrate an overall use of faculties in other fields toward these philosophical goals?

Despite the enormity of the tasks, the difficulties and pitfalls, most of the questions can be answered positively. Our problem is to work out practical and effective means to these ends.

Working Group I

Thursday 2/6/75

The Role of the University in the Solution of Health Problems.

- a. Education of Professionals Supplementary to Medicine and of Health Ancilliary.

Recommendations:

Curriculum for medical school already too heavy. It would be unwise to introduce dentistry as a subject into the curriculum. However basics of dentistry should be taught in the medical school; example of this is in Ife. Since health education is so effective in dental care the preventive aspects of dental care should be vigorously encouraged.

Since setting up of dental schools is even more expensive than medical school and dental nurses are able to meet the present demands of the populations and the training of dental nurses should rather be encouraged.

- b. Community Involvement

Traditional Healers and Others.

Recommendations:

- a. Dialogue with Traditional Healers
- b. Research into Traditional Medicine to be continued.
- c. Invite Traditional healers to be on Health Education committee. Try to influence them to change their traditional concept of disease.
- d. Tradition Birth Attendants Schools for these to be set up and upgraded and encouraged to help in this field.

GROUP I THURSDAY AFTERNOON

Some of the questions to be considered:

Are traditional healers to be incorporated into the medical services?

Or not?

If so, which types should be considered?

Should they be retrained first?

By Whom?

Where?

What sort of training for which type?

Any constructive suggestions for training systems?

What about research?

If research, which areas should we be interested in?

In herbal medications?

Psychic section?

THE ROLE OF TRADITIONAL HEALERS
IN THE SOLUTION OF HEALTH PROBLEMS

Esther S. Boohene

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THE ROLE OF TRADITIONAL HEALERS
IN THE SOLUTION OF HEALTH PROBLEMS

1. The Traditional African Concept of Disease

Traditional African medicine is an art derived from the cultural experience of the people and bound up with their religious belief. It is practiced by professional healers within the various tribal groups. The methods of treatment used are carefully guarded secrets and are only revealed through the training of new recruits into the healing profession.

Although there are regional peculiarities in the traditional religious belief of the African, certain basic features are held in common throughout the numerous tribal groups. I shall refer primarily to the practice of traditional medicine in my own country of Ghana. Christians form about a third and Moslems about a fourth of the Ghanaian population. The rest of the people are animists, i.e., they believe in spirits.

The Akans, the largest tribal group in Ghana (also found in parts of the Ivory Coast), believe in Nyankopong, the Originator, the Supreme Being, the Creator and Source of all life. He is considered to be a spirit and is approached by human beings only through other lesser spirits, or abosom. The earth, Asase Yaa (Mother Earth) is considered a goddess. The abosom have their shrines where they are approached and

worshipped through their intermediaries, the priests and priestesses known as akomfo. The akomfo are subject to being possessed by their gods and are believed to speak with the god's voice while in this state. (A description of possession will be found below.) Traditional healers are usually in close contact with these priests, who assist them when necessary and from whom they can learn more about healing.

Ancestors have a central place in the cosmology and social system of many African societies. For the Akans, although the ancestors are physically dead their spirits are still seen as an integral part of the society, helping and rewarding those who obey the laws and follow the customs, punishing by disease or misfortune any who fail in their traditional obligations.

The African believes in the existence of supernatural forces which have control over life, death, and disease. Although illness is accepted as a pathological state, it is generally believed to be caused by the ill-will or ill-action of one person against another, through the agency of witchcraft and magic. Concepts such as germs, viruses, and protein and vitamin deficiencies do not figure in traditional medical theory.

The Idomas (Nigeria) have what has been described by Armstrong (1966) as the "moral theory" of disease, according to which serious illness is attributed to either a moral

lapse on the part of the sick person or the malevolent act of another. Among the Akans (Ghana) the cause of serious illness is often sought in the circumstances of the person's social life. The traditional African view makes no clear-cut conceptual separation of the physical world on the one hand and the supernatural on the other. It is therefore thought necessary to treat illness on both the physical and spiritual levels. When a sick person consults a traditional healer he expects him to discover the cause of the illness, find out who the culprit is, diagnose the nature of the disease, apply the right treatment, and supply a means of preventing the misfortune from occurring again.

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2. The Training of Different Types of Professional Traditional Healers

The traditional healer is seen in every town and village in Africa. He is a great source of help in times of crisis. He is accessible to everyone and he comes into the picture at many points in individual and community life. He is influential, well-respected, and well-liked in his community. He is sometimes wrongly referred to by Americans and Europeans as a "witch-doctor" -- a term which should now be buried and forgotten. The traditional healer uses medicaments which he prepares himself. He charges for his services according to the patient's financial means. The patient is permitted to pay at his convenience.

There are different types of traditional healers: those who use only magico-religious methods in healing, the herbalists who derive their powers from their medicines, and the sumankwafo (Akan, Ghana) who deal in asuman (charms or talismans). Asuman have innate magical properties derived from spiritual beings. Perhaps the most popular of all is the traditional healer who uses both medicaments and magico-religious methods in healing. It is the training of this last type of traditional healer that I now proceed to describe.

A. The Traditional Healer

A prerequisite for being accepted for training, in most cases, is to have been possessed by a deity. Possession usually occurs when the prospective traditional healer is attending

some religious ceremony at a shrine. Both men and women are accepted but are trained at different shrines. The training lasts for three years.

The first year is devoted primarily to orientation and observation. During the second year the trainee learns therapeutic techniques and the properties and location of plants and herbs. He learns about the god of the shrine, for he will be the intermediary between the people and the god. He learns dances and incantations used to invoke the god. He is taught the construction and use of asuman, or charms.

In the third year, the trainee receives instruction in the technique of "water-gazing" -- hwe-nsom. This is an art of divination which involves the ability to discern "what lies within the water." For many weeks the trainee is taken to the side of a river and made to look into the water until he begins to see the faces of the spirits of the ancestors. The purpose of the art of water-gazing is to be able to communicate with the spirit of the ancestors.

During the third year the trainee is taught akom, the art of being possessed. Akom manifests itself in behavior akin to an epileptic fit. It is induced by drumming and dancing by the shrine attendants.

The akom descends suddenly on the person in question, who may be dancing normally or quietly standing or sitting watching others. Suddenly he becomes possessed. He begins to rock and shake violently, rolling his eyes and behaving like

someone struggling for air. The attendants of the shrine come to his aid and take him away. He is brought back with white clay smeared all over his body, clad in white cloth, and wearing charms in his hair, on his arms, and on his ankles. He starts to shake and dance, remaining on his feet for hours. During this time he is supposed to be possessed by the deity and can make utterances desired by the deity.

Finally the possessed person shouts loudly and the deity departs. The possessed person collapses into the arms of the attendant. When he revives, he has no apparent recollection of what has happened.

During the training, strict discipline is enforced. Taboos must be observed. Celibacy is required. The trainee must never adjure the god of the shrine to kill anyone. He works during the day on the TH's farm, lives in the same compound as the TH, and sleeps at night in the temple beside the shrine, so that he is constantly under observation by the TH. At the end of the third year, the initiate attains the status of a fully trained traditional healer.

B. The Traditional Birth Attendant (TBA)

In Ghana, 65% to 75% of all births are attended to by TBA's, and the situation is not likely to be very different in other parts of Africa.

Studies by Acquah (1956) in Ghana show that the training

of a TBA may take from one to seven years, depending on previous experience. The trainee learns under an older practicing TBA, invariably a kinsman or kinswoman.

The pupil receives instruction in the magico-religious belief surrounding pregnancy. He learns the traditional methods of treating infertility, menstrual complaints, complications arising from pregnancy, and infant diseases. In addition, he learns about the natural physical changes which occur during pregnancy, and is introduced to the medicinal herbs used in obstetrics.

Priestesses also study midwifery during their training as officers of the shrine. They use essentially magico-religious remedies in their treatment of pregnant women.

TBAs may be male or female. They are usually elderly, and are often illiterate.

C. "Bone-setters"

Some traditional healers have become famous for their skill in setting fractures. The town of Larteh is well known in Ghana for its bone-setters. It is believed that the skill was derived from the god Adebea and is transmitted through the patrilineage at Kubease, a subdivision of that town. The practitioners appear to have a sound knowledge of anatomy.

3. Diagnosis and Treatment of Illness by a Traditional Healer

Let us assume that the father in a family falls ill. The wife or children inform the elders of the extended family, who then assess the situation. If the father is found to be seriously ill, he is relieved of his responsibilities as a father. This means he has received legitimate approval to be ill. He is now free from his social responsibilities and can assume the sick role. The sick father, accompanied by relatives, now goes to consult a traditional healer at his shrine.

The diagnosis of illness is embedded in the magico-religious system of the society. Sometimes a specific god may be consulted, at the patient's request or the TH's own discretion, to ascertain the cause of the illness. The techniques used in divination include possession.

The god communicates with the TH during the time he is possessed. This dialogue is unintelligible to all around the shrine, with the exception of the TH's okyeame, or linguist, who interprets the god's message to the patient and his relatives.

After diagnosis the patient, accompanied by a member of his family, remains at the shrine for treatment.

Medicine may be taken orally or by enema. During treatment, the patient is allowed little rest because the agents causing the illness -- demons -- must be frightened away.

Terrifying masks, unbearable smells and fumigations, loud noises and dancing may be employed to this end. If these fail, sorcery (the use of magic to overcome evil deeds) is utilized by the TH to drive away the demons. Should the demons prove resistant to this approach, they are appeased with sacrifices and precious gifts.

The test of the effectiveness of the traditional healer depends on his ability to communicate with supernatural forces in order to diagnose disease and prescribe cures. The patient's faith and the personality of the healer are essential ingredients for success. This method of handling disease through magico-religious acts and concepts has a positive psychological value. The patient's belief that the traditional healer has established contact with the forces which control the disease contributes to his feeling of security and trust.

Many of a TH's visitors are not really sick. They consult him in search of asuman (charms, nostrums) which they hope will enable them to meet the problems of modern society and everyday life: success in trade, competition at school or at the office, fear of infertility, impotence, etc.

The studies of Acquah (1956) and Twumasi (1971) in Ghana emphasize that both the educated and the uneducated seek help from traditional healers. Most educated as well as uneducated women consult the TBA when pregnant. Often they acquire asuman, charms, as "protective medicine" to cover the period of pregnancy and the early life of the infant. This

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aspect of the TBA's activities is very important to the expectant mother. Those women who have access to antenatal clinics go back to these clinics to continue their medical care after they have acquired the "protective medicine."

4. Pharmacology

Each traditional healer has his own recipes for treating disease. In general, these are trade secrets, although there are some herbs which are in common use.

While the modern pharmacist seeks primarily to isolate the active principle (e.g., in an herb), the traditional healer believes other principles may have a synergic effect on the main active principle. He therefore mixes his medications in order to dilute or activate this effect. Medications may be prepared from herbs alone or mixed with animal parts.

Ezeabasili (1966) gives a list of some Ibo (Nigeria) medications and their constitution. For example, the extract from Argemone mexicana, berberine, is active against Leishmania tropica. Cassia absus, whose active principle is chaksine, is active against staph aureus. Solarum supp. contains solanize, which is active against candido albicans, staph aureus, etc.

5. Why Does Traditional Medicine Continue to Flourish in the Face of Scientific Medicine in Africa?

There are several reasons for the continued popularity of traditional medicine in presentday Africa.

(a) Traditional healers are more accessible to the people than modern medical personnel. According to the latest census in Ghana, while only 29% of the Ghanaian population live and work in urban areas, about 71% of the medical and para-medical personnel working for the civil service practice in urban centers. Health personnel who are recruited from rural areas often refuse to go back and work in remote health centers because of lack of social amenities. A mother might walk for miles only to find when she arrives at a health center that her baby is already dead.

(b) The bureaucratic organization of the health facilities is often alien to the people and this discourages hospital attendance.

(c) It is commonly felt that hospital staff are brusque and discourteous.

(d) In psychiatric illness, the traditional African prefers to be treated by the traditional healer because they share the same world view.

In summary, the traditional healer is popular because he lives among the people and can be sought out at any time of the day or night. A patient is charged according to his means, and usually can pay at his own convenience. The traditional healer always gives him an explanation of his illness; in contrast, the hospital staff often finds no time to offer explanations.

GA

6. Interaction with Modern Medicine

From the standpoint of modern medicine, traditional medicine has many shortcomings. It is not rational. The traditional healers are reluctant to reveal the recipes for their medications. No records of treatment are kept. The sanitary conditions are sometimes unacceptable by modern standards.

But in spite of these shortcomings, Africa stands to gain a great deal by integrating traditional medicine with scientific medicine. This integration will be particularly valuable if the preventative aspect of medicine is emphasized. Traditional healers, who by virtue of their work are already popular and influential in the community, can be invited to serve on public health education committees. Hopefully, this would create in them an awareness of the physical causes of disease and eventually could alter traditional attitudes.

There are already indications that this approach may not be unrealistic. The attitudes of traditional healers have already begun to change. They now display sign boards advertising their skills. Some own telephones and mailboxes. Some bottle their medications for large-scale marketing. Several can be seen practicing their profession wearing white coats, another modern influence.

In Larteh, Ghana, the chief priestess of the Akonedi shrine has a secretary and an "education attache", a university graduate who gave up a university lectureship in parasitology

to take up this work. The chief priestess has also travelled to the United States twice. (Brokenscha, 1966)

There have been instances when some traditional healers have even suggested that their patients go to the hospital for an injection.

It can be inferred from the above examples that the traditional healers are not totally cut off from the 20th century. It might not be impossible, therefore, to influence them positively for the benefit of the community.

It is encouraging to know that some prominent educational institutions in Africa have already started investigation into traditional medicine. In Nigeria, traditional medicaments are being analyzed and the useful ones introduced into modern medical practice (Onuaguluchi, 1964). In the Aro experiment, Lambo has been able to develop cooperation between psychiatrists and traditional healers. The services of the THs are used to allay the fears and anxieties of his psychiatric patients. In Ghana, a program for upgrading the performance of TBAs has been set up under the medical school's Danfa Comprehensive Rural Health and Family Planning Project. The aim is to devise a training program which incorporates traditional midwifery practices into the official training curriculum. The course lasts for four months, after which TBAs are given midwifery kits from UNICEF.

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7. Future Prospects

In the face of the acute shortage of health personnel as well as facilities, the interaction which has been established between traditional and scientific medicine needs to be encouraged. It opens the door wide for new ideas which, if skillfully processed, could be of benefit to all. Some of the traditional healers, such as bone-setters and TEAs, are already very skilled in their specialities. We need to develop ways to retrain them to make it possible to incorporate them into the medical services.

We cannot ignore the fact the 70% to 80% of the population in Africa use the services of the traditional healer. Unfortunately, not enough is known of the intrinsic value of some of their healing methods. There is an obvious need to collect data and to conduct research in this area.

Cooperation with the traditional healers can lead to a positive change in the traditional African concept of disease. We stand to lose nothing by this experiment. The traditional healer is bound to remain popular into the foreseeable future since he is accessible, available, and acceptable to the people.

Why not use him?

Arthur Sophia Buchanan

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Perspectives with regard to

increasing Health Manpower

in Nigeria

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Nigeria with a population of nearly 80 million (1973 census) has grossly inadequate basic health facilities. As at 1971, the Health Manpower and facilities obtainable are as shown in Table I and II (Dada B.A.A. 1973). When one group of the total health manpower team - the Physicians - are looked at on a global scale, Nigeria has only 1 doctor per 33,000 population (Table 2).

The inadequacy of health manpower is further complicated by uneven distribution among the population and dearth of infrastructural services like clean water, electricity, easy transportation and inadequacy of funds. Other problems like poor environmental sanitation and personal hygiene, overcrowding poor nutrition, inadequate personal health services (maternal and child health, school and occupational health services) uncoordinated and inadequate immunisation programmes, health education and epidemiological services including the building

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schools to aim at producing 1,000 doctors per school per year by 1980. This target can be reached by the older and more established schools if serious consideration is given to

(a) adequate financial provision to the Universities or Medical Schools. Costs which will run into several millions of dollars will be needed for capital and recurrent expenditure. A minimum figure of \$300,000,000 per school has been suggested as a rough estimate.

(c) Suitable and adequate numbers of candidates can only be obtained if good scientific foundations are laid in the Secondary schools. It would also be necessary to run large Basic Sciences courses as well as expand and adequately staff existing ones if wastage from dropouts or lowering of medical standards is not to ensue. It would also follow

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that students admitted into medical/dental schools should be offered scholarships automatically.

This would obviate the possibility of students not being able to take up places because of lack of funds. The provision of a State scholarship which is often tied to a bond will also enable the government to deploy doctors to serve in rural areas where the poor, underprivileged, ignorant, undernourished and diseased populations who need medical care abound.

- (c) At the same time as the number of medical personnel are being increased, there must also develop training programmes to increase all categories of the health manpower team. Such newly recruited trainees (health auxiliaries) and the existing

para-medical cadre should be given more relevant training than they had previously received to maximise their capacity and function. Their orientation should be towards rural, urban, preventive and curative approaches to health care delivery. Reorientation and redefinition of tasks will enable para-medical personnel take over the simpler and unskilled tasks which the doctor has to perform. Routine immunisation programmes, the recognition of minor illnesses and health education can also be taken over by this category of staff.

(d) The reorganisation of faculties of medicine within Universities to semi-autonomous schools of medicines affiliated to degree-granting Universities appears strong for budgetary and other administrative reasons. The training of basic para-medical personnel

as

would cost much more to provide and would be less efficient within the umbrella of degree-granting institutions. Bearing in mind the high entry requirements for medicine in the Universities, the para-medical students would be poorer academic material who would need more of the teachers' time if satisfactory results are to be achieved.

- (e) The provision of adequate numbers of teachers would constitute one of the bottle necks of this grandiose plan. There is already general world-wide shortage of qualified teachers especially in the preclinical areas. Massive recruitment from abroad would provide a temporary solution.

However the expansion of postgraduate professional training programmes, to provide teachers as well as

staff bigger hospitals will be an absolute necessity. The recruitment of the many qualified Nigerians in the United States or United Kingdom etc. who are part of the brain-drain should be tactfully pursued, the persons being offered attractive conditions of service.

- (f) Medicine is an international affair and even with this apparent mass production, all efforts must be made to avoid devaluation. Modern teaching technological aids should be utilised as much as possible to improve the teaching. The curriculum of the medical schools should be designed with the primary aim of training doctors for work in Nigeria. Serious consideration should also be given to the reduction of period of undergraduate training to 4 years without lowering the standard of instruction

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or the quality of the experience. Reduction in the total duration of the course will drastically reduce even the short periods of vacation and will impose a heavily crammed course especially in the preclinical areas.

To ensure uniformity of development in all sectors of the economy the growth of other professions like Agriculture, engineering etc. should also be accelerated.

Both the traditional healer and members of the orthodox medical health team aim at offering service to the community who are the consumers of skills. Ademuwagun (1974) found in a study on a rural community that the pattern of utilisation of health services was not based on educational status but on the belief and value in what each system of medicine could do for a particular complaint or disease. For example, with neurosis, 74% of people believed and consulted traditional healers whereas in dysenteric diseases, 66% consulted the

orthodox medical physician. When it is realised that over 85% of the Nigerian population live in rural areas reconciliation and integration between the two systems of medicine becomes very important since they both aim at a common goal. Viewed from the eye of the practitioner of orthodox medicine, the identification of the positive roles and elimination of the negative practices would be the first step towards integration and reconciliation. The enlarged mixed health team could by tackling the burning health issues of the community transform the country as if with the wave of a wand.

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TABLE I. HEALTH MANPOWER AND FACILITIES
IN NIGERIA, 1975

Estimated Population	66,000,000
Number of Medical Schools	5
Number of medical graduates (Ibadan & Lagos University)	103
Number of Registered Dentists	120
Number of Registered Veterinary Surgeons	182
Number of Registered Pharmacists	910
Number of Registered Medical Practitioners	2,878
Number of Registered Nurses	14,086
Number of Registered Midwives	14,951
Number of Hospital (and health centre) beds	34,705
Number of Maternity beds	4,334
Number of Registered Psychiatric Nurses	356
Number of Registered Health (Nurse) Visitors	125
Number of Registered Nurse Tutors	117
Number of Registered Midwifery Tutors	40
Number of Registered Public Health Nurse Tutors	18

TABLE II

HEALTH MANPOWER FACILITIES IN NIGERIA 1971

Population per medical school	13,000,000
Population Registered dentist	550,000
Population Registered Pharmacist	72,000
Population per Registered Medical Practitioner	23,000
Population per Registered Nurse	4,700
Population per Hospital bed	1,900
Population per Maternity bed	15,000

From Dada E.A.A. In priorities in National Health Planning. Editors Akinkugbe, O.O. Olatunbosun O, Esan G.J.F. Caxton Press Limited Ibadan pp. 123

TABLE III

DOCTORS PER 100,000 population

USA)	
BRITAIN)	120-200
EUROPE)	
Taiwan		32
India		22
Pakistan		19
Indonesia		4
Tanzania		4
Nigeria		3
Malawi		2
Nepal		2
Ethiopia		1

Source: Statistical Year Books of U.N. and W.H.O.

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PERSPECTIVES WITH REGARD TO INCREASING HEALTH
MANPOWER DEVELOPMENT IN GHANA

By

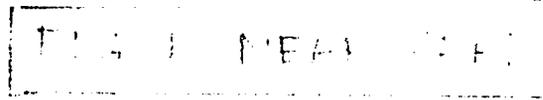
Dr. S.R.A. Dodu
Dean - University of Ghana Medical School

African countries have come a long way since the days of the colonial medical service. Today, Africans are free to set their own goals, their own priorities and their own targets and to almost every country this means a commitment to provide health care coverage for the total population.

The slogan "acceptable and accepted health care for all" is implicit in statements made by political leaders throughout the world and will dominate medico-political thinking in the remaining decades of this century. It is for sober minded health planners to determine a realistic level of "acceptability" that a country is able or willing to pay for.

Level of health manpower development

The position in Ghana is not unique. The basic demographic characteristics are similar to those of other countries in West Africa and the trends in health manpower development are also similar. (Fig. 1).



The pattern of medical practice is such that almost two-thirds of the total number of doctors are employed by the Government in the national health service which is run by the Ministry of Health. At the end of 1973 there were 951 physicians in the whole country and

TABLE 1
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675 (i.e. 72%) of them were Ghanaians (Table 1).

In round figures $\frac{1}{3}$ of the physicians are based in the capital city (pop. 700,000), $\frac{1}{3}$ in 19 other urban communities with a total population of about 1 million and the remaining $\frac{1}{3}$ are scattered over the rest of the country where 70% of Ghanaians (6 million) live in communities of less than 5,000 people each.

This is the perspective against which Ghana must consider its health manpower development policy. The objective is to extend basic health services to all areas. There is no disagreement on this; the real question is how should, or can it be achieved?

Extending physician type service

Table 2 shows the numbers and distribution of the main categories of health personnel and reveals that whereas only 36% of doctors (mainly non-Ghanaians) are in practice in the rural areas, 78% of medical assistants are located in these areas. It is clear that any intention to extend physician type service to rural areas in Ghana at the present time must give priority to the training of medical assistants (or Health Centre Superintendents).

Ghana is currently considering starting a new medical school and it is pertinent to examine the need for more doctors, from its proper perspective and also to consider the role of the University in shaping national health policy.

Physician/population ratios

The uncritical obsession with physician/population ratios is a dangerous condition which obscures the primary objective which

The role of the University

The responsibility of the University Medical School in national health planning has been stated in a WHO publication (Technical report Series No.547, 1974) as follows:

"Medical schools cannot be simply interested by-standers or reactive institutions responding to pressures; they have to help to shape events in the health care arena and they must be committed to the enlightenment of public opinion if demands of society are unsound. They must interact with the health system as it is, and assist in its gradual and continuous improvement."

"Enlightenment of public opinion" in practical terms means the identification of problems and the marshalling of objective evidence in support of a recommended line of action.

The Universities must assist in the evaluation of the work of health personnel in the field situation and they must carry out research into the most appropriate and effective means of training different levels of health personnel under given conditions.

There are other problems to which solutions must be sought:

- (1) What is the rate at which rural areas are expected to acquire the minimum facilities that can effectively sustain a doctor?
- (2) What is the optimum number of doctors for the present and anticipated expansion of the health service?
- (3) At what rate can the health delivery system absorb doctors?

is to extend 'acceptable' and 'accepted' health services to the whole population.

It has been suggested for example, that Ghana should plan for a target ratio of 1 doctor to 2,000 people by the year 2000 A.D. Such statements are based on the assumption that, whatever it is, that is meant by "acceptable" health care, more physicians are required to provide it.

Physicians and medical assistants (Health Centre Superintendents)

No target doctor/population ratio can of course guarantee an equitable distribution or an efficient utilisation of physicians. Ghana has already achieved the target of 1 physician to 10,000 of the population which has been suggested for the WHO African Region by the year 1980 and in my personal opinion it is feasible and realistic for Ghana to reach a target ratio of 1:5000 in the year 2000 A.D. (Table 3). This would require an intake of 120 doctors into the single medical school as from 1981. It is possible to plan for this increased intake without a massive outlay in capital expenditure.

TABLES 3 + 4 NEAR
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At the same time it is necessary to intensify the training of medical assistants in order to achieve a similar ratio i.e. 1:5000 by 2000 A.D. (Table 4). This implies that for the next decade priority in health manpower development in Ghana must shift from physicians to physician assistants or extenders.

I must emphasise again that these suggestions are purely personal and empirical.

- (4) What is the national policy regarding the creation of highly specialised tertiary care units and might these be developed on a national basis or as a joint project by neighbouring friendly countries?

I believe the Universities have a role to play in finding the answers to these questions.

Dr. El Neil Implementation of the conference recommendations shall be handled by the Association of African Medical Schools. A formal invitation will be extended for April 27, 1975 meeting to participants of the conference.

It was moved that letters be written by Dr. Grigsby to the Association confirming the invitation to include Howard University and Caribbean schools as well as other health team members and other professional bodies.

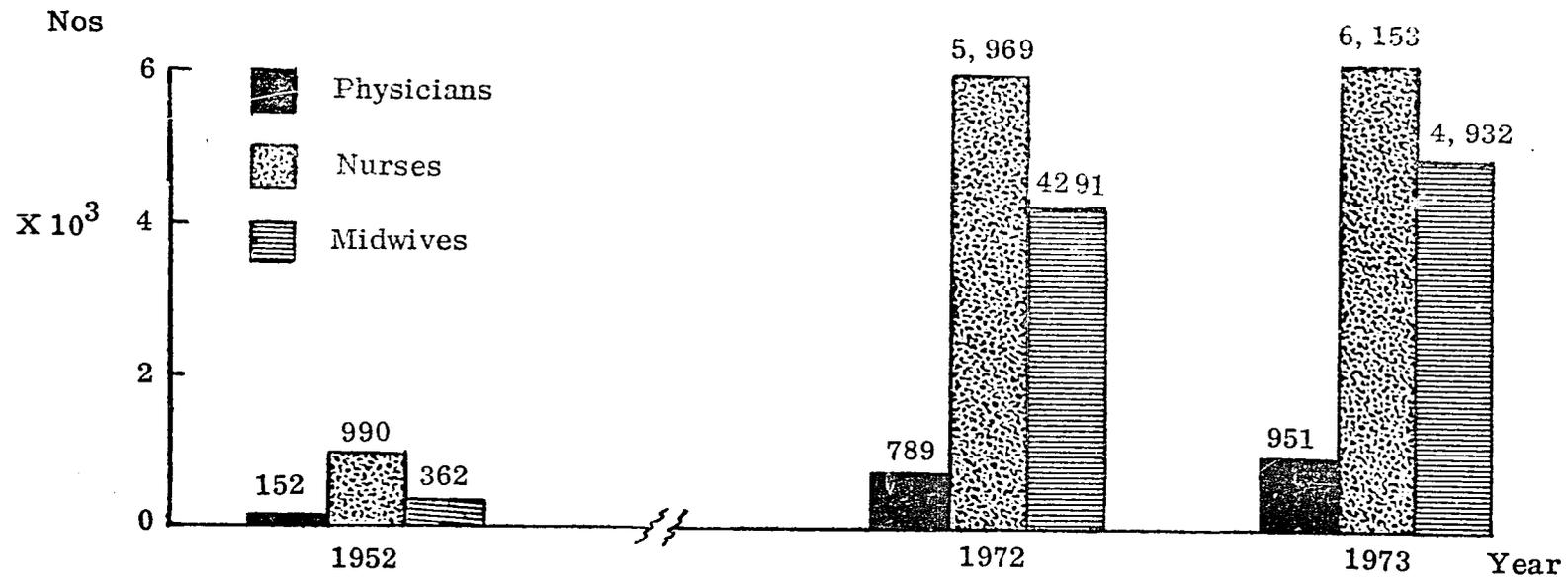
A motion was made by Dr. Grigsby and passed to:

Recommend action on a university pilot project to study the impact of health teams on health problems of countries with large Black populations.

Dr. Poindexter- It was moved and passed that the proceeding of this meeting be published and distributed to all participants.

Thanks for the invitation to the conference were extended by Dr. Thompson of Nigeria to Howard University, USAID, African American Scholars Council and PAHO, for the African nations represented.

Dean Mann made concluding remarks and closed the conference at 12:00 PM.



Numbers of Physicians, Nurses(Professional) and Midwives
in Ghana (1952, 1972 and 1973)

DISTRIBUTION OF GHANAIAN & NON-GHANAIAN PHYSICIANS
IN GHANA (1973)

	PUBLIC SECTOR		PRIVATE SECTOR		TOTALS
	Urban	Rural	Urban	Rural	
Ghanaian	419	104	108	44	675
Non-Ghanaian	65	20	21	170*	276
Totals	484	124	129	214	951
	608		343		

*Mainly foreign Missionary doctors

Table 1.

PROPORTION OF HEALTH PERSONNEL IN URBAN &
RURAL AREAS IN GUANA (1973)

	Whole country Total (100%)	DISTRIBUTION	
		(a) Urban %	(b) Rural %
Physicians	951	64.4	35.6
Med. Asst.	258	22.5	77.5
Nurses (Prof.)	6,153	41.6	58.4
Auxi. Nurses	2,460	37.8	62.2
Midwives	3,662	15.7	84.3
N/Midwives	1,270	53.6	46.4
Lab. Tech.	276	76.9	23.1
Asst. Tech.	244	80.5	19.5

Table 2.

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DOCTOR/POPULATION RATIOS

1973 FIGURES PROJECTED TO 1980 AND TARGET FOR 2,000 A.D.

	Doctors	Population	Ratio Doc/pop.
1973	951	9 mill.	1:9,000
1980	1,400	11.2 mill.	1:9,000
2,000	3,600 (Target)	18.3 mill.	1:5,000 (Target)

Table 3.

Handwritten notes:
 1973
 1980
 2000
 CR

MEDICAL ASSISTANT/POPULATION RATIOS
 1973 FIGURES PROJECTED TO 1980 AND TARGET FOR 2,000 A.D.

	MEDICAL ASST.	POPULATION	RATIO Med. Asst./Pop.
1973	258	9 mill.	1:35,000
1980	500	11.2 mill.	1:22,000
2,000	3,600 (Target)	18.3 mill.	1:5,000 (Target)

Table 4.

*Supports in Health
 The State Dept.
 SR-116-116*

HEALTH PROBLEMS OF BLACK POPULATIONS

An International Conference on
Health Manpower Development and the Role of the University

Wrap-up Session, Report and Recommendations

Dean Marion Mann, Howard University College of Medicine

Assistant Professor James Shepperd, Recorder
Professor Margaret E. Grigsby, Conference Coordinator

Group I

Dr. El Neil
W.H.O.
Brazzaville
Office

Resources Problems

1. Projection is difficult due to political changes and ideological differences.
2. Training students to deal with changes and to anticipate them is necessary.
3. Recruitment for rural service and finding incentives to keep workers there must be done.
4. Attitude of students to be compatible with the faculties of the university. Attitude must be worked on in secondary schools.

Group II

Dr. Kagia
Kenya

Roles of Health Workers

Preventive

Curative

Administrative

Recommended: Each ministry of health and university faculty should set standards and perform task analysis for M.D.'s and auxiliary health workers.

Group III

Dr. Francis
Nigeria

Definitions

1. Professional - generally acceptable for each discipline.
2. Functional - work without supervision.

Group III (cont'd)

3. Auxiliary - works with professional with or without supervision.
4. Auxiliary - works with supervision.

Staffing determined by administrators and planners.

Health Educators should be drawn from the village or other community and provide a link with PHN and community.

All workers need:

- a. multidisciplinary training
- b. need courses in management and administration

Wednesday II

Dr. Wurapa
Dr. Evans

Team Approach and Health Services Strategy

Recommended to make team approach work:

1. Establish need for team
2. Avoid cross purposes
3. Coordination of work in other institutions.
4. Public Relations
5. Statements regarding the team's ability to meet the needs of the community.
6. Role definition is important to understand the team function.
7. Support from the Health Department and others is vital,

Group IV

Dr. Poindexter

Field Training for Auxiliary

1. Definitions - differ country to country
2. Planning estimates - figures relate to need and economics.
3. Training program - length and content vary. Attempt should be made to shorten courses.

Group IV (cont'd)

4. Course content depends on job task assignment.
5. Supervision of training and work is important.
6. Evaluation of skills provides credibility.
7. Cost Benefit/Analysis - should be done to determine value of auxiliaries.

Health Center: Minimum staff for curative services

- a. Medical Assistant and Physician Assistant
- b. Community nurse
- c. Health Assistant - Sanitation-preventive medicine practitioner.

Thursday

Dr. Adetosoye

1. Dental auxiliary training should be accelerated.
2. University to broaden schedule for medical students to include dental information and skills.
3. Preventive dentistry can be performed by auxiliaries.

Traditional Healers

1. Research into traditional healers should be instituted in the university.
2. There is collaboration by scientific and traditional healer, but no integration of traditional healer into Homeopathic medical care.
3. Caution must be maintained regarding the efficiency of traditional healer in evaluation of medical problems.

Session on Increasing Health Manpower

Friday, Morning

Dr. Davidson

Perspectives for increasing health manpower

Manpower development

A. Manpower provided by:

1. expanding existing teaching institutions
2. introducing new ones

Friday, Morning (cont'd)

- B. Question of type should be examined in the light of the needs and constraints of the system for delivery of health care.
- C. Extent of coverage should be seriously considered.
- D. The use of community leaders is of paramount importance.

University's Role:

1. Must be greater effort on the part of policy makers in government and university to break with tradition in who provides what health service.
2. University must be receptive to change.
3. University should be more practical and bold in enlightening government and collaborating with the community.
4. Self reliance should be encouraged and not total reliance on external aid.
5. University should not lag behind or be too far ahead of government in terms of national development but must be just a step ahead, always maintaining open communication channels.

Other Recommendations

Moved

Dean Mann

That this house, should for the purpose of the post-conference action on the problems delineated during the deliberations, establish a team, based mainly on the universities of the various regions of the conference member nations, to look into the problems and to serve as a body that will be a link between the various countries.

Howard University will serve as a reservoir of information and expertise as well as manage the affairs for the American participations. Dr. Grigsby the coordinator of this conference will name the multidisciplinary committee to carry on the work of this conference.

Passed

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